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ABSTRACT

The technical report portion of a national survey of bilingual education programs funded under Title VII of the Elementary and Secondary Education Act is presented. The study, conducted during 1979-83, describes the characteristics of the programs' classroom instruction component. Basic project directors and parent advisory committee chairpersons were surveyed by mail, and 60 sites were visited and intensive interviews conducted with administrators, coordinators, teachers, and parent advisory committee chairpersons. Information is presented in these areas: (1) characteristics of a representative sample of projects; (2) identification of groups of projects representing distinctly different instructional approaches for children of limited English proficiency; (3) project objectives; (4) the relationship between skills actually addressed by the projects and the skills necessary to function effectively in an all-English classroom; (5) the degree of program implementation among local education agencies; and (6) factors impeding implementation. Overall, it was found that the program is: highly varied, with an emphasis on meeting individual students' needs; emphasizing English instruction, but with many projects making heavy use of the native languages; implemented successfully but in need of more staff training and parent participation; and only partially institutionalized locally, with Title VII remaining the primary source of funding. (MSE)

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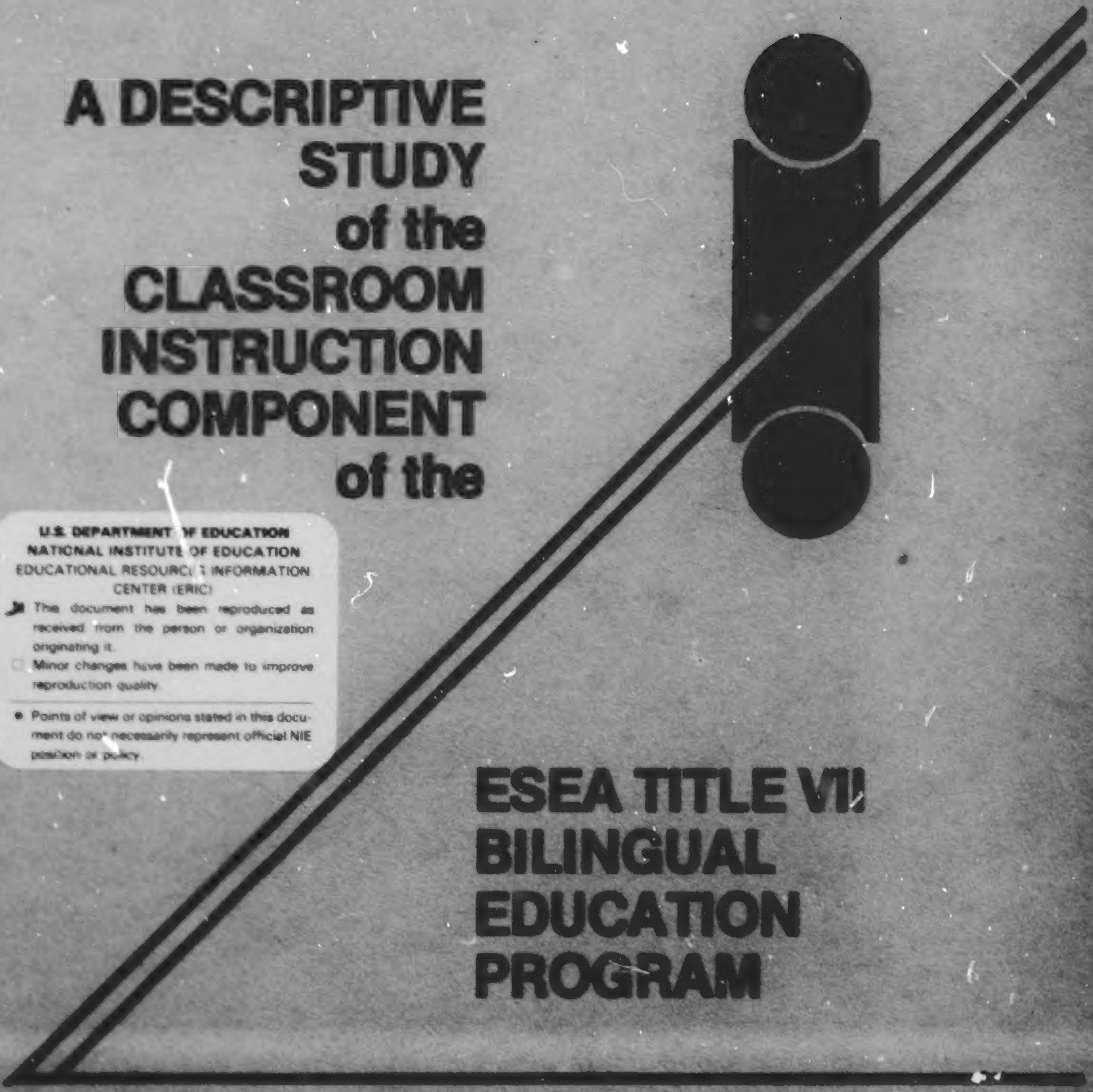
TECHNICAL REPORT

A DESCRIPTIVE STUDY of the CLASSROOM INSTRUCTION COMPONENT of the ESEA TITLE VII BILINGUAL EDUCATION PROGRAM



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TECHNICAL REPORT

A DESCRIPTIVE STUDY OF THE CLASSROOM INSTRUCTION COMPONENT OF THE ESEA TITLE VII BILINGUAL EDUCATION PROGRAM

Contract No. 300-79-0675

Submitted By:

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February 15, 1983

The Study reported herein was performed pursuant to a contract with the United States Department of Education through Part C, ESEA Title VII. However, the opinions, conclusions, and recommendations expressed herein do not necessarily reflect the position or policy of the Department of Education, and no official endorsement by the Department of Education should be inferred.

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PREFACE

This Technical Report summarizes the findings of the Study, "A Descriptive Study of the Classroom Instruction Component of the ESEA Title VII Bilingual Education Program." This Report contains major findings relevant to Basic Program projects which were in operation during the 1980-1981 year. The Study was performed by Development Associates, Inc., in affiliation with Abt Associates Inc. during the years 1979-1982. This Report is accompanied by one other document, Selected Case Histories.

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Finally, both firms would like to thank the numerous local project directors, parent advisory council chairpersons, superintendents, teachers and other administrative personnel who were so cooperative in completing mail survey forms, permitting interviews, and in general, supplying us with first-hand information on program aspects and operations. The quality of a program evaluation ultimately rests on its data, and local programs uniformly were willing to help the Study achieve its goals. This cooperation is greatly appreciated.

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OVERVIEW

This Study was conducted during the years 1979-1983 by Development Associates in affiliation with Abt Associates, Inc. The goal of the Study was to describe the characteristics of the classroom instruction component of Basic projects funded under the ESEA Title VII Bilingual Education Program. The broad purpose of this program is to enable local education agencies (LEAs) to establish, operate, or improve programs of bilingual education to assist children of limited English proficiency (LEP) in improving their English language skills.

The Study used a mail questionnaire which was sent to all Title VII Basic project directors and to Parent Advisory Committee chairpersons. In addition, a sample of sixty sites was visited and intensive interviews were conducted with local school and district personnel including superintendents, principals, project directors, federal program coordinators, teachers, teacher aides, and parent advisory committee chairpersons.

Two major reports resulted from the analysis of data collected in this Study: The Technical Report, which contains data tables and summaries, and includes a comprehensive analysis on the Study topics of project characteristics, project objectives, and project implementation; and Selected Case Histories, which is a collection of narrative reports on twenty-two of the sixty sites which were visited.

The results of the Study, grouped in terms of the six study objectives, were as follows:

To describe the characteristics of a representative sample of the Title VII-funded Basic bilingual education projects.

In FY 1980 there were a total of 524 Basic projects, three-quarters of which were in at least their second year of operation. The median grant award was nearly $150,000 in FY 1980.

In 1980, the projects served between 160,000 and 200,000 limited English proficient (LEP) children. The average number of students in self-contained classrooms was 28; the majority of these students were clustered in the lower elementary grades (87% in K-3). LEP students represented 43% of the total in each class.

Three-quarters of the projects served a single native language group. During the 1978-1980 period, the number of unique languages addressed by projects increased from 60 to 91. In this same period, there was a decrease in the total number of projects serving at least some Spanish-speaking students, from 422 (74% of all projects) to 358 (68%).

Overall, project staff members were qualified and experienced. Three-quarters of project directors were full-time and supported by Title VII funding. The typical project director had previous experience as a teacher in a bilingual classroom, and two or more years' administrative experience with Title VII.

Title VII requires the input of an advisory council consisting of parents and other representatives of the LEP community. Ninety-eight percent of the projects had Parent Advisory Committees. Overall, the parent committees were reported to be playing a strong and active role in project operations.

In conclusion, it was found that most projects served Spanish-speaking students who were working below both national and local academic norms. However, the number of projects serving children using Asian and American Indian languages is increasing as are the number of unique language groups served. Staff members are qualified and experienced, and parent input, through Parent Advisory Committees, is a factor in the planning and operation of projects.

To identify groups of projects which appear to represent distinctly different instructional approaches to the education of children with limited English proficiency.

Instructional approaches (e.g., use of aides, use of language, etc.) varied across projects, and projects did not cluster meaningfully in terms of approaches employed. For example, although 27 percent of the project directors interviewed reported that an externally developed educational model had been adopted, no more than two project directors reported adopting the same model. Within projects, the instructional approach often varied by grade level in response to student needs.

The extent of use of English and native language for instruction varied within project by grade level. In general, there appeared to be a greater tendency to use the native language more extensively at the lower grade levels and to use English more frequently at the upper grade levels.

Nearly 40 percent of the projects used the pull-out model either exclusively or in conjunction with the in-class model. The frequency of the pull-out approach increased with grade level, with pull-out used more in grades three through six than in kindergarten through grade two.

In conclusion, projects did not cluster with respect to distinctly different instructional approaches and were too varied to be grouped by the definitions and typology used in the Study. In the future, instructional approaches or activities should be examined not at the project level but at the classroom level and, if possible, at the individual student level.

To determine project objectives.

Project objectives were reviewed in the areas of instruction, staff development and training, parent and community involvement, management/administration, and materials development and acquisition. Instructional objectives were the most frequently formulated. It was found that 97 percent of projects included among their annual objectives increasing their students' English language skills.

Management/administration objectives were also frequently formulated. Ninety-one percent of projects had objectives partaining to project staffing, and 86 percent of projects cited the employment of bilingual personnel as an objective. With regard to staff development and training, 79 percent of projects reported district level inservice training as an objective, while 68 percent cited college or university coursework for staff as an objective.

In conclusion, it appears that projects are concentrating their efforts concerning formulation of annual objectives in the areas of instruction, management, and staff development/training. Within the instructional area, projects clearly emphasize English language skills objectives over native language skills objectives.

> To determine the relationship between skills actually addressed by the projects and those skills necessary to function effectively in an all-English-medium classroom in the United States.

The survey of teachers in English Language Arts indicated that as the classroom grade level increased, the LEP students tended to function increasingly below classroom grade level. The data showed that modal LEP students were most typically on-grade for the lowest grades, one grade below classroom grade for the middle grades, and two grades (sometimes more) below level at the fifth and sixth grade levels. ("Modal LEP grade" was the grade level at which the teacher indicated the greatest number of LEP students were functioning.)

From the perspective of reading, writing and oral language skills taught at assigned classroom grade levels, the percentage of above grade level skills addressed tended to be substantially below the percentage of on-grade and below grade level skills addressed. Generally, reading skills were addressed more completely than writing skills, and both these skills were more completely addressed than oral language skills. The percentage of on-grade reading skills addressed averaged in the high eighties; the percentage of on-grade writing skills addressed averaged in the low eighties; and the percentage of on-grade oral language skills averaged in the low sixties across all grade levels.

Overall, it was found that the skills necessary to function effectively in an all-English speaking classroom were being taught. As expected there is more emphasis on teaching below assigned grade level; there is also considerable teaching below students' functional grade level, and this was not expected. The emphasis varied, however, by subject area, with 80 percent or more of on-assigned grade level skills being taught for reading and writing and only 60 percent for oral language skills. Thus, it is clear that there is greatest emphasis on teaching on-grade level skills in reading, followed closely by writing, with oral language skills the least emphasized.

To determine the degree of program implementation among local education agencies.

Overall it was found that a full instructional program was provided to students with most of the instruction provided in English. Project teachers used English more than 70 percent of the time for teaching English reading and language arts, ESL, mathematics, social studies, and science. In native reading and language arts, the native language was used 88 percent of the time. There appeared to be a greater tendency to use the native language at the lower grade levels and to use English more frequently at the upper grade levels.

Important aspects of classroom instruction are the skills taught and the determination of when to transfer students to an all-English speaking classroom. Kindergarten teachers reported the longest time period (2.7 years) and second grade teachers the shortest (1.7 years). However, since teachers also reported teaching further below grade level as the students' assigned grade level increased, it appears that some students are staying in the program considerably longer than others.

In the area of staff development, 61 percent of the classroom and 76 percent of the resource teachers had received some bilingual education inservice training.

In addition, the Study looked at the important area of institutionalization of project services which can be viewed as another indicator of the extent of program implementation. If a program is to be institutionalized, it first must be adequately implemented. To assess probability of institutionalization, the Title VII project and district staff were asked if the project was effectively accomplishing its goals and meeting local needs. Almost three-quarters of the superintendents who were interviewed believed the project was effectively accomplishing its goals to a great or very great degree. In addition, approximately two-thirds of teachers considered the project to be a definite advantage or a vital addition to the district's educational system. However, district administrators were concerned about their ability to continue the project without federal funding. Seventy-six percent of superintendents, 82 percent of federal programs coordinators, and 72 percent of principals said that bilingual education services would be reduced or dropped if Title VII funding was reduced or discontinued.

To identify factors which enhance or impede project implementation.

Over half of the project directors indicated that assistance and cooperation of school administrative staff helped project operations to a great or very great extent. Although it was reported by staff that the community which the project served was not a critical factor in project implementation, the data do indicate that parents, PAC members, and others in the community were often intensely involved on an on-going basis, and that their contributions were important.

It was found that 61 percent of classroom and 76 percent of resource teachers had received some bilingual education training prior to the 1980-81 school year. About three-quarters of the principals and teachers reported that pre- and inservice training had helped the implementation of their projects.

The data from this Study showed that teachers reported few modifications in their instructional plans. Only one-quarter of the teachers reported making modifications to their instructional approach, materials, or activities over the life of the project. However, it was also found that teachers did not think in terms of plans being modified, but in terms of evolving plans. This being the case, modifications or changes were likely being made to a greater extent than was reported.

Eighty percent of project directors reported carrying out needs assessments during the 1980-81 school year, and a similar percentage reported carrying out internal evaluations and monitoring efforts and that these had been moderately or very effective in assisting project implementation.

Three-quarters of projects received materials, services, or training from a Bilingual Education Service Center (BESC), and two-thirds of the directors of these projects reported that this support was moderately to very effective. Over half of the project directors also reported that resource support received from their SEA was useful.

Overall, a majority of the projects were carrying out implementation strategies which were identified in the literature as being necessary for successful project implementation. The Study findings indicated that project and district level staff generally thought that implementation of these activities enhanced the success of their project.

* * * * * * * *

Overall, the Study results describe a program which is changing to meet new circumstances and students. In essence, the Title VII Basic Program across the country is:

- highly varied with an emphasis on meeting individual student needs;
- emphasizing English instruction, but with many projects making heavy use of the native language;
- being implemented to a successful degree in many school districts, but facing problems regarding the need for more staff

training, and the need for more effective parent participation in some projects; and

- only partially successful at the local level in terms of institutionalization, with Title VII remaining the primary source of funds for projects.

CHAPTER 1

INTRODUCTION TO THE STUDY

The Bilingual Education Act, passed in 1968 as Title VII of the Elementary and Secondary Education Act of 1965, was created in recognition of the fact that there are many children whose language proficiency and cultural heritage differ from those of many English-speaking students. Supporters of the Act felt that since these factors are primary influences on learning, there are many children whose educational needs might be better met by participating in a program of bilingual education. The Act provided the first federal assistance for this purpose.

The Act also called for several studies and research projects to be designed to assess and describe various dimensions of federally-funded bilingual education programs. This Study is part of that effort.

1.1 Program Overview

Under the Act, projects are funded in the following program areas:

- Basic Projects in Bilingual Education;
- Support Services Projects;
- Training Projects;
- Fellowship Programs; and
- Materials Development Projects.

The focus of this Study is on Basic Projects in Bilingual Eduation program areas. Under this program, local education agencies (LEAs) have the opportunity to submit proposals for grants to the Office of Bilingual Education and Minority Languages Affairs (OBEMLA) of the U.S. Department of Education. Projects funded through this program may involve elementary and/or secondary grade students. The broad purpose is to enable LEAs to establish, operate, or improve programs of bilingual education to assist children of limited English proficiency (LEP) in improving their English language skills. The projects also are to be designed to build the capacity of the LEA to continue programs of bilingual education when federal funding is reduced or no longer available. Although the majority of grants are expected to continue for multiple years, grant awards are made for a one-year duration -- with continuation awards for subsequent years subject to satisfactory performance and availability of funds. The maximum period for a grant is three years.

Within this context, a "program of bilingual education" is one in which:

- instruction is given in English and, to the extent necessary to allow children to achieve competency in the English language, in the native language of the children of limited English proficiency;
- instruction is given with appreciation for the cultural heritage of the children of limited English proficiency and of other children in the United States; and
- instruction is given in all courses or subjects of study to the extent necessary to allow children to progress effectively through the educational system.*

Because the characteristics of local education agencies and the needs of their students differ across the United States, the characteristics of bilingual education projects differ considerably. Consequently, Basic projects collectively represent a diversity of instructional approaches, languages, and local community contexts.

Since its inception in FY 68, the amount of federal funds appropriated for the ESEA Title VII program has increased steadily (See Table 1.1). The amount available for Title VII's Basic Grant Program has been somewhat parallel to the total Title VII appropriation, with approximately $95 million available in FY 78 and $102 million each in FY 79 and 80. In FY 1980, the median grant amount was $149,506.

After a period of early growth, the number of Basic Program projects has declined slightly, with 567, 540 and 524 projects being funded in fiscal years 1978 through 1980, respectively. Of the 524 projects funded during the 1980-81 school year, 26% were newly funded, and 74% received funding to continue on-going operations. As shown in Figure 1.1,

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*A more specific definition calling for the use of a structured English language development component, including English reading and writing skills and a structured primary language component, each relying on daily instruction, appears in Cervantes, Duran and Anglin (1981).

TABLE 1.1

FUNDING HISTORY: TITLE VII OF THE ELEMENTARY AND SECONDARY EDUCATION ACT (ESEA) OF 1965, AS AMENDED BY P.L. 95-561*

Year	Authorization	Appropriation
FY 68	$ 15,000,000	$ -0-
69	30,000,000	7,500,000
70	40,000,000	21,250,000
71	80,000,000	25,000,000
72	100,000,000	35,000,000
73	135,000,000	45,000,000
74	146,750,000	58,350,000[1]
75	147,250,000	85,000,000[2]
76	152,750,000	98,000,000[3]
77	163,750,000	115,000,000
78	174,750,000	135,000,000
79	232,000,000	150,000,000
80	299,000,000	166,963,000[4]
81	191,463,000	179,763,000

[1] Of this amount, $9,879,000 was released and made available for obligation in FY 1974.

[2] Amount shown is after congressionally authorized reductions.

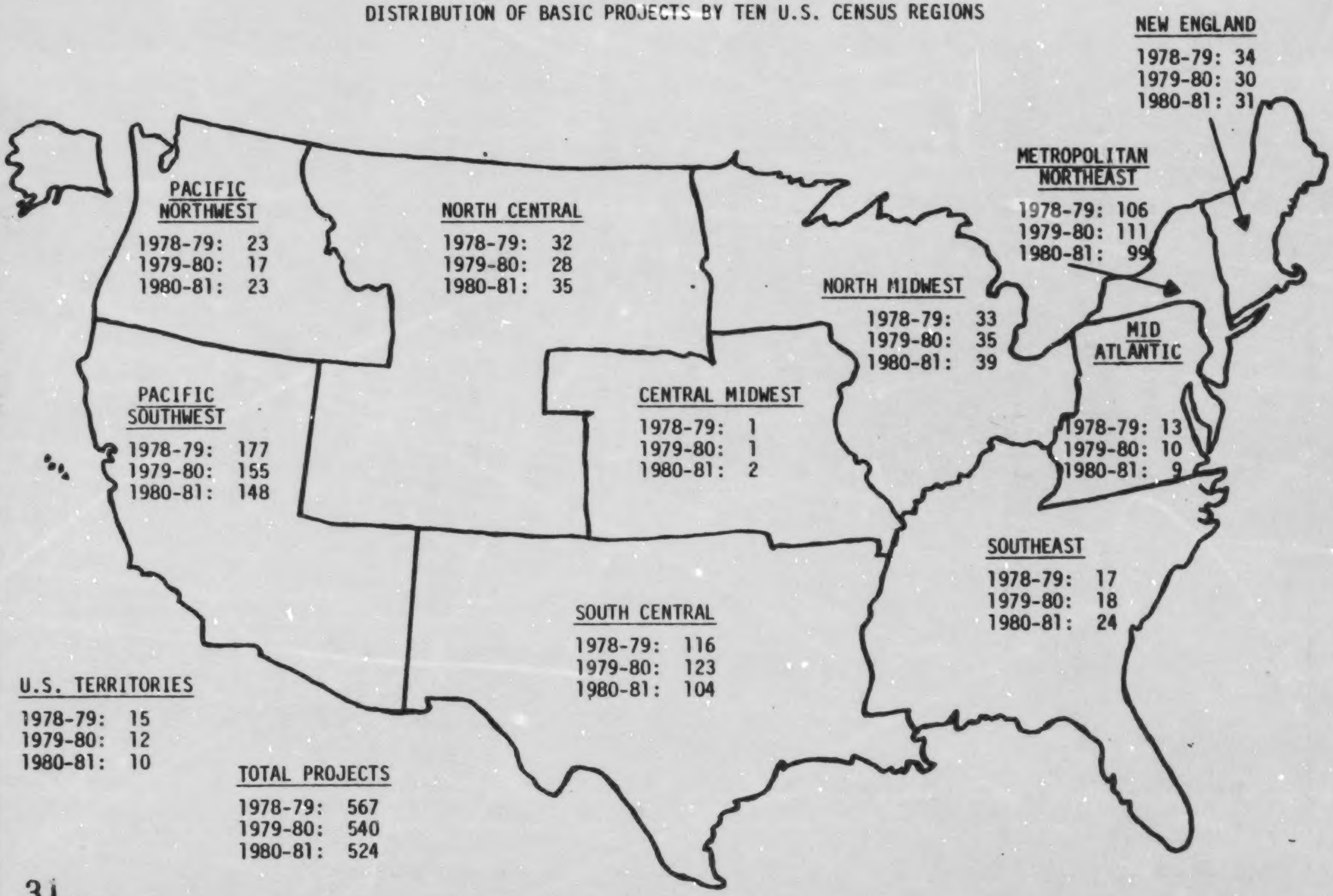
[3] Includes funds earmarked by Congress to carry out provisions of Part J of the Vocational Education Act. An amount of $2,800,000 was appropriated for this purpose each year. Subsequently, funds for vocational education have been requested under the appropriation title for Occupational, Vocational, and Adult Education.

[4] Includes $8,600,000 for the bilingual desegregation program, moved to Title VII as of 1980 from the Emergency School Aid Act by the Education Amendments of 1978.

*From: Annual Evaluation Report: Volume II, Fiscal Year 1980. U.S. Department of Education, p. 87. Note: The appropriation column reflects grand totals for all programs, including Basic Programs.

FIGURE 1.1

DISTRIBUTION OF BASIC PROJECTS BY TEN U.S. CENSUS REGIONS


NEW ENGLAND
1978-79: 34
1979-80: 30
1980-81: 31
PACIFIC NORTHWEST
1978-79: 23
1979-80: 17
1980-81: 23
NORTH CENTRAL
1978-79: 32
1979-80: 28
1980-81: 35
METROPOLITAN NORTHEAST
1978-79: 106
1979-80: 111
1980-81: 99
NORTH MIDWEST
1978-79: 33
1979-80: 35
1980-81: 39
MID ATLANTIC
1978-79: 13
1979-80: 10
1980-81: 9
PACIFIC SOUTHWEST
1978-79: 177
1979-80: 155
1980-81: 148
CENTRAL MIDWEST
1978-79: 1
1979-80: 1
1980-81: 2
SOUTHEAST
1978-79: 17
1979-80: 18
1980-81: 24
SOUTH CENTRAL
1978-79: 116
1979-80: 123
1980-81: 104
U.S. TERRITORIES
1978-79: 15
1979-80: 12
1980-81: 10
TOTAL PROJECTS
1978-79: 567
1979-80: 540
1980-81: 524

the heaviest geographic concentration of projects was in the Pacific Southwest, which accounted for 28 percent of all projects in 1980-81. The fewest were in the Central Midwest and Mid-Atlantic regions.

1.2 Purpose and Scope of Present Study

The goal of the Study was to acquire an understanding of the characteristics of the bilingual education projects funded through the Basic Program of the Office of Bilingual Education and Minority Languages Affairs, and the ways which these projects were implemented. Within that broad goal, the more specific focus was on the implementation of Basic projects serving children in kindergarten and grade levels one through six. The major objectives of the Study were:

- To describe characteristics of a representative sample of Title VII - funded Basic bilingual education projects and to identify groups of projects which appear to represent distinctly different instructional approaches to the education of children with limited English proficiency.
- To determine the project objectives, and the relationship between skills actually addressed by the projects and those skills necessary to function effectively in an all-English-medium classroom in the United States.
- To determine the degree of program implementation among Local Education Agencies and to identify factors which enhance or impede project implementation.

In addressing these objectives, the Study developed policy (and associated evaluation) questions that served to guide the process of inquiry and that focused on the generation of information which would be useful to policymakers. The Study staff attempted, within the constraints set forth by the U.S. Department of Education's stated needs and Study objectives and based on information available at the time (April 1980), to define a broad set of policy questions within three areas: project characteristics, project objectives, and project implementation. Taken together, these foci of the research design have enabled the Study to address a variety of important policy issues and specific questions of research and policy which are of interest to Congress and the Department of Education, as well as to the field.

In specifying policy questions for the Study, the staff were aware that both the law and the ensuing regulations might be changed in three different ways: to enforce strict compliance with the current legislation; to facilitate LEA attempts to comply with the legislation; and to have the upcoming law be more reflective of conditions and circumstances that exist within the LEAs which are receiving funds. The policy-related questions which the Study addressed and the information to be provided, therefore, had to be designed to facilitate the U.S. Department of Education's ease of recommending which of these routes Congress should follow as it reviewed and revised those portions of the law related to these three areas.

1.3 Contexts Which Affect the Study

In response to Congressional requests for information and as authorized by Part C of the Bilingual Education Act, a Research Coordinating Committee was established in the spring of 1978 to help plan and implement various studies and activities that would comprise a broad research program in the area of bilingual education. The Part C Research Coordinating Committee was therefore formed to coordinate these studies and report to Congress.

The Study described herein is one of those sponsored by the Part C Research Coordinating Committee in the area of Improvement in Title VII Program Management and Operations. (The other two major areas are: Assessment of National Needs for Bilingual Education, and Improvement in the Effectiveness of Services for Students.) Other relevant studies besides the present one included:

(a) "Resources For Developing A Student Placement System For Bilingual Programs: Language Skills Framework," 1979-80. The goal of the study was to develop a student placement system for assisting ESEA Title VII projects in developing and implementing an entry/exit and follow-up assessment system appropriate for their needs. The core of the system rests on a Language Skills Framework (LSF) which presents the particular English language skills on a grade-by-grade basis necessary to function effectively in all English-speaking classrooms in the United States.

(b) "Significant Instructional Features In Bilingual Education," a related set of five studies, 1979-1983. The purpose of the main study was to identify significant instructional features in bilingual education, and determine the consequences of these features for children. The study design rests on the use of ethnographic, then confirmatory, appraisals of the major features present in bilingual classroom and program settings.

(c) "Survey of Children With Limited English Proficiency and the Services Which They Receive," 1978-81. The purpose of the study was to provide: (a) a validated count of the number of children with limited English proficiency by language and by State, and (b) data on the nature and extent of educational services which they receive.

From a theoretical perspective, the present Study addresses the planning, implementation and institutionalization of change within complex organizations. In the study of change there are two major traditions or schools of thought. The first, and more highly developed, focuses on the implementation of change as a rational process. The accumulating data on the results of change programs, however, have led to considerable dissatisfaction with a simple rational model. Peterson (1977) has summarized some of the "anomalies" that appear when the rational model is applied; and the Rand Change Agent Study (Berman and McLaughlin, 1978) provides clear support for these criticisms. For example:

- Changes are seldom implemented as planned. Rather, they tend to undergo a process of continuous change as they enter the system, and these changes are affected by organizationally unanticipated characteristics and events.
- The introduction of identical changes within outwardly similar organizations may lead to different implementation processes and outcomes.
- Different implementation approaches and change management strategies may produce similar results.

The logic of inter-relationships, that is, the rational tradition, has been seriously questioned by a number of writers in recent years, who point out that inter-related organizations, especially educational organizations, are often not so tightly coupled (Weick, 1976). Rather, the educational system is composed of many levels and organizations: classrooms, schools, school districts, state educational systems, and a national education framework. Due to long-standing traditions of local and professional autonomy, the linkages between levels and organizations become much looser as one moves from the classroom upward.

Thus, new models emerging in the literature point to another concept which emphasizes the "non-rational" elements that condition the change process. From this second perspective, change is viewed as a negotiated process, involving mutual adaptations of the plan for change and the setting in which it is implemented. Factors such as organizational structures and processes, conflicts, and local norms are assumed to have as much, if not more, impact on the success of a change program as do the conditions stimulating the change attempt or the rational plan. It is the current consensus of most researchers in the field that this is the more suitable approach to assessing change in local school districts (Lehming and Kane, 1981).

In developing the design for this Study of bilingual education projects, the research team posited that local implementation would be moderated by both rational and non-rational elements in a loosely linked (rather than tightly coupled) systems network. Further, in broad terms, this network involves important and different contexts at the federal, state, and local levels. The policy issues which were developed, as well as the design, instrumentation and analyses undertaken, incorporated this view as discussed below.

1.3.1 The Federal Context

With respect to ESEA Title VII Basic projects, the federal delivery system works directly with LEAs. In some cases, the grant is made jointly to an institution of higher education and the local education agency; in other cases, it is made to schools operated or funded by the Bureau of Indian Affairs. Thus, the degree to which levels/organizations are "linked" has an important effect on the degree to which changes in one level/organization, such as those imposed "top down," will affect change in another. Loosely linked organizations tend to be characterized by a high degree of autonomy and little consensus on goals and processes.

This notion of linkage, therefore, has several important and direct implications for the study of implementation processes within the Title VII Basic Grant Program. First, given that Congress has provided these funds in order to enable Local Education Agencies to provide special programs for limited English proficient children, it is assumed that the acceptance of funds for projects represents an acceptance on the part of the local district to introduce change, which will be consistent with the federal legislative intent for bilingual education in ESEA Title VII. Second, given that states vary in terms of their bilingual education legislation and with respect to their influence on local programs, considerable project variability can be expected to be present. And finally, the local need and the available resources can also be expected to result in differences among projects.

With the above in mind, the 1974 and 1978 legislation reauthorizing the ESEA Title VII Bilingual Education Program set forth goals for Basic projects. These goals were necessarily broad and general, since they needed to provide for a wide variety of needs (and responses to those needs) in local school systems around the country. For example, the 1974 and 1978 legislation state that the purpose of the Bilingual Education Act is "to demonstrate effective ways of providing, for children of limited English proficiency,* instruction designed to enable them, while using their native language, to achieve competence in the English language." Such non-directive, non-interventionist statements of goals are fairly typical of federal legislation in the field of education. They primarily reflect the non-centralized nature of public education in the United States.

OBEMLA created rules and regulations for the ESEA Title VII Program which further specified and clarified goals. This step represented an attempt to set forth rules and regulations under which the program could actually be administered. The current set of rules and regulations for

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*The term "ability" was used in the 1974 legislation.

Title VII state that "the purpose of a program of bilingual education is to assist children of limited English proficiency to improve their English language skills." Thus, neither the legislation nor the regulations prescribe specific goals and objectives for states or local school systems. However, the rules and regulations do spell out fairly specific criteria which are to be used in evaluating new applications for assistance under the Act, including criteria which pertain to the form and context of project objectives. Thus, some degree of linkage or coupling certainly was intended and the Study sought to examine it.

1.3.2 The State Context

Depending upon both the particular program and state legislation, states may play a number of different roles in local project implementation, ranging from very active to very passive. Also, depending at least in part upon the degree of congruence between federal and state legislation, such legislation may serve to either enhance or impede project implementation. Through ESEA Title VII, state education agencies may obtain financial assistance to coordinate technical assistance to projects in their states. Depending upon the state's need for bilingual education, its own legislation, and the amount and the type of assistance the state receives through ESEA Title VII, the state may set up its own delivery system to assist the local projects. Furthermore, state laws or political pressures may influence both federal policies and the local community context. Assuming, too, that systems vary in the degree to which they are coupled, some states may have developed administrative and management practices that encouraged communication and linkages among levels, while other states will have done relatively little in this area.

It is noted, however, that there is considerable variation among the mandates of the states which have bilingual education legislation, that the state mandates for bilingual education are not always in accord with the federal legislation, and that states may include more or less specificity than federal legislation. Irizzary (1978) classified states according to whether they had passed legislation which specifically mandated bilingual education; had legislation related to bilingual education but did not mandate such activity; or had no bilingual education legislation. On this point, 34 projects in the 60 site-visit project sample used in the present Study were located in states which mandated bilingual education; 13 projects were located in states that had non-mandating legislation; and 13 were located in states that had no bilingual education legislation. Therefore, the effect of the different state legislative contexts for bilingual education is an important variable to be considered.

1.3.3 The Local Context

The local community is the third part of the policy context existing for an ESEA Title VII project. Social, political, and historical factors related to bilingual issues, the extent to which the community and parents traditionally involve themselves in the educational process, and the socioeconomic structure of the community all play a role in the commitment of a community to bilingual education. This commitment may lead to the development of a Parent Advisory Council (which is required by ESEA Title VII prior to funding) which will work with the school system, at various levels of involvement, to develop the plans and local delivery systems for an ESEA Title VII project. Community pressures may also be exerted directly upon the state and the local school system to shift project emphases and activities in particular directions.

The change process within the local district typically commences with a needs assessment and the development of program plans. Such activities continue with planning and writing the initial project proposal. These activities continue after the grant is awarded, as final plans for project start-up are made and the Parent Advisory Committee (building on the Council's work for that project) is formed.

As numerous studies have shown (e.g., Stebbins, St. Pierre, Proper, Anderson, and Cerva, 1977; Proper and St. Pierre, 1979; Rosenblum and Louis, 1979), faithful implementation does not automatically follow the design of a project. Many factors influence the process of implementation, so that the project as it actually exists is often very different from the project initially conceived. Many plans, for example, will be relatively abstract and lack a clear and specific statement of the means by which the project is to be carried out. Thus, during the initial phase of implementation, the abstract goals will come into contact with reality and modifications will be required.

As the project is implemented, feedback provides information to decision makers so that "mid-course" corrections may be made. Formative information is used by local staff to modify projects' characteristics and implementation strategies. Data are also provided to the Education Department for monitoring purposes and to Congress for policy modifications. Finally, local districts are likely to vary in both the extent and type of autonomy they will permit schools, projects and classroom instructors within their systems for conducting and modifying project goals, curricula and activities. In designing the Study, these factors from the local context were considered. Many variables dealing with this level are therefore discussed in the various chapters.

In sum, notwithstanding the federal mandate and regulations, and varying effects of state and local contexts, the projects which have been funded under Title VII represent a considerable diversity of institutional approaches, languages and local community characteristics. Indeed, the recognition of this heterogeneity was a major motivator for this Study. How the Study staff attempted to integrate the main factors involved in the preceding discussion into the Study design, and the methods used ror obtaining data which bears on some of these issues are presented in the following chapter.

1.4 Organization of the Report

Chapter 2 of the Technical Report covers the Study methods and design. It contains a discussion on data collection instruments and procedures and provides a brief description of the analytic procedures. General characteristics and local Title VII project goals and objectives are presented in Chapter 3. At a more specific level, Chapter 4 provides information on staffing patterns in Title VII Bilingual Education classrooms. Implementation characteristics and processes are discussed in Chapter 5. The skills addressed in bilingual education classrooms are found in Chapter 6. Finally, Chapter 7 contains the Study's overall findings and conclusions. A series of relevant Appendices follow these chapters.

CHAPTER 2
STUDY DESIGN AND METHODS

2.1 Overall Study Approach

This Study sought information from a variety of local bilingual education projects using two approaches:

- A mail survey of all 1980-81 funded Basic Projects using two instruments, one distributed to all project directors, and the other to all Parent Advisory Committee (PAC) chairpersons; and
- Onsite data collection using personal interview protocols with the staff in each of 60 representative projects serving one or more grades in the K-6 grade range in the continental United States.

The mail survey approach sought to gather detailed project-level descriptive information. The second approach, site visits, focused on obtaining more detailed project-level information as well as information at the school and class level.

Overall, data were collected from seven types of respondents at each sampled project. These types of respondents, and the approach used to collect data from each, were the following:

- LEA Superintendents (interview);
- LEA Federal Programs Coordinators (interview);
- Title VII Project Directors (mail survey and interview);
- School Principals in targeted schools (interview);
- Classroom and Resource teachers associated with Title VII projects (interview and onsite questionnaire);
- Teacher Aides working with Title VII classroom teachers (interview); and
- Chairpersons of Title VII Parent Advisory Committees (mail survey and interview).

2.2 Sampling Design

The sample was drawn from a computerized data base which contained all projects funded for 1980-81, their key characteristics and mailing address. This data base was generated from a listing of project information prepared by the National Clearinghouse for Bilingual Education through a review of all funded applications. This data base represented 524 local projects in the continental United States and territories.

The overall goal of the sampling design was to:

- Ensure sampling coverage and have sufficient data on all topics of interest; and
- Be optimal, so that it would provide a sample that was representative of the diversity of local bilingual education projects funded under this federal program.

The first phase of the sampling design consisted of the census phase, i.e., mailing project director and parent advisory council chairperson questionnaires to each funded project. The second phase of the design involved using a stratified random sampling approach to select 60 projects which were statistically representative of 401 projects serving any of the grades K-6 (i.e., having an elementary grade component) in the continental United States, and then contacting them to elicit their cooperation in the Study. The third phase consisted of obtaining sufficient information on these 60 projects so that representative samples could be drawn (within each project) of certain types of respondents, whose perspectives and characteristics were highly relevant for understanding project goals, instructional approaches, and operations.

In probability sampling terms, each project acted as a cluster from which a representative sample of schools was drawn. Within each of these schools, representative samples of classrooms and their teachers, aides and resource teachers associated with the project were also drawn. More detail on each of the three sampling phases is presented below.

2.2.1 The Survey Analysis Census (SAC)

All 1980-81 ESEA Title VII-funded Basic Program Grant projects located within the 50 states and outlying territories were contacted by using a mail survey approach.* Due to the wide diversity of project contexts, operations and language groups served, all projects were surveyed in order to ensure precise information. Although potentially unique in terms of the peoples served and languages addressed, outlying territory projects were also included so that the findings would apply to all funded projects. Data from the mail survey phase served two major purposes: to develop a profile of the characteristics of all funded projects, and to obtain additional project and PAC-level information on those 60 projects selected for site visits which were part of the Indepth Analysis Sample, described below. The mail survey phase began in advance of the site visits.

2.2.2 The Indepth Analysis Sample (IDAS)

The 60-site Indepth Analysis Sample was drawn from a sampling frame of 401 projects. It consisted of a subset of all 1980-81 ESEA Title VII funded Basic programs located in the 48 contiguous states. Projects in Puerto Rico, the Virgin Islands, the outlying territories, bilingual special education projects, and those serving only the middle or high school grades were excluded for the following reasons.

Projects not in the continental United States were excluded because of the disproportionate field data collection resources which they would have required. Bilingual special education projects were excluded because they were quite different from projects serving children in regular instructional settings. Any 1980-81 Basic Program projects which did not provide instruction in the K-6 range, such as projects only serving middle or junior high school grades (e.g., a 6-8 or 7-9 combination) or only pre-kindergarten, were also excluded from the IDAS sampling frame. This was because the focus of the Study was at the K-6, elementary grade range level, a level of major concern to the Department of Education, OBEMLA and the Part C Coordinating Committee. Thus a sampling frame of 401 domestic projects serving any of the grades K-6 (including such combinations as K-3, K-9, 1-6, or even K-12) remained.

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*The District of Columbia does not have a Basic project; thus, it was not contacted.

2.2.2.1 Stratification Variables

Probability sampling approaches were used to draw a sample of 60 Title VII projects from the sampling frame of 401 projects. For sampling purposes, the frame was subdivided into groupings of projects on the basis of the extent to which the projects shared certain characteristics or factors. These factors had been culled from a larger set of selection factors and were derived from computer data analyses of 1979-80 funding applications, since information for 1980-81 was unavailable until late in 1980. The 1979-80 data analyses served as a planning tool and increased the utility of the sampling design by validating the assumptions underlying the choice of sampling variables and levels.

A total of 60 groupings was formed from combinations of the five variables used as sampling variables. Not all combinations of these variables were represented in the sampling frame; thus, a strict factorial stratification approach was not feasible. However, the 60 groupings were closely reviewed for their homogeneity and utility in improving the sampling precision of the design. The sampling or stratification variables used to form these combinations were the following:

- Types of language (Spanish; languages most often found in Title VII non-Spanish projects; languages least often found in Title VII non-Spanish projects; Native American languages);
- Number of languages (one, more than one);
- Geographic region (Northeast and Mid-Atlantic; Southeast; South Central; North Central, Central Midwest and North Midwest; Pacific North and Southwest);
- The total number of students served (below 200; 200-399; 400-799; 800 or more); and
- Year of funding (newly funded, refunded).

The reasons for using these stratification variables were as follows. The type of language addressed by individual projects was an important stratification factor because it was associated with the cultural and student population to be served, the implementation needs, and the types of resources available to the project. The number of languages was considered an important stratification variable because projects with more than one language must face the issue of allocating their resources across language groups and project objectives.

Geographic region was also used as a stratification variable to help capture the diversity of projects from different parts of the continental United States. Several alternative geographic divisions of the United States were considered, such as those used by the Census Bureau, the National Center for Health Statistics and the National Center for Educational Statistics. None exactly met study needs. The ten federal regions therefore were regrouped to assign projects employing linguistic variations in Spanish (e.g., Puerto Rican or Mexican) to different regions of the United States. Five regions were created from this regrouping process.

The number of students served by projects across all targeted grades correlated with projects' overall size, funding level, extent of curriculum offerings, and staff size. (For example, the number of students correlated .53 with funding level.) The number of students was therefore chosen as a proxy for various aspects of project size.

The variable year of funding was chosen for sampling purposes because it was considered strongly related to program implementation. It was anticipated that newly funded projects may need at least a year to get their plans into operation, whereas those in their second or later year of operation as refunded projects may have overcome such hurdles, could be smoothly operating, have more capacity-building features, etc. Thus, having a representative set of projects on this variable would permit cross-sectional analyses of newly-funded with refunded projects in examining how each type of project was functioning.

The following chart illustrates three strata created from the sampling variable groupings and the extent to which the projects assigned to particlar strata had common characteristics.

Stratum Code	Number of Projects in Stratum	Characteristics Common to All Projects Within Stratum	Characteristics Common to Most Projects Within Stratum
15	6	Type of Language - all used Spanish. Total Number of Students - all had between 1-199. Year of Funding - all were in their second or later year of funding.	Number of Languages - three were single-language projects and three used two or more languages. Geographic Region - two projects were from the Northeast/Mid-Atlantic, three from the Southeast, and one from the North Central/Central Midwest/North Mid-west region.
49	5	Type of Language - all used languages most often used in non-Spanish projects. Total Number of Students - between 400-1200 students. Year of Funding - all were in their first year of funding.	Number of Languages - four used two or more languages. Geographic Region - the five projects were from each of the five regions listed as on page 18.
59	5	Type of Language - all used languages least often found in non-Spanish projects, and all used Native American languages. Total Number of Students - all had between 400-1200 students.	Number of Languages - four of the five were single language projects. Geographic Region - three were from the Pacific North/Southwest region and two were from the North Central/Central Midwest/North Midwest region.

This chart therefore, supplies a general indication of the fairly high degree of homogeneity created by using these strata. As a result of this process, some slight variability within strata also existed.

2.2.2.2 Selection of Projects

These 60 groupings acted as strata from which one Basic Program project was then selected. Each project had an equal probability of selection within each stratum. Some diversity in the number of projects classified into particular strata sizes did exist. However, 88% of the strata had 5-9 projects in them; only seven had fewer than five or more than nine projects. This diversity slightly reduced the sampling efficiency. Nevertheless, it was considered desirable to retain the homogeneous strata which had been constructed, since they increased the sampling precision of the design.

Due to schedule conflicts and similar factors, seven of the originally chosen projects could not participate in the Study. These seven were replaced with other projects randomly drawn from the same sampling strata. Analyses of known project characteristics of replacements with original selections did not indicate any bias which might have been introduced by the replacement process. Statistical analyses also indicated that the final set of 60 projects visited were representative of the 401 K-6 projects on all of the major sampling variables. The final set of 60 IDAS projects which were visited appears as Appendix 1.

2.2.2.3 Selection of Schools

The sampling frame used to select schools within each project was based on information supplied initially by funding applications and updated by telephone calls to projects which had already agreed to participate. Schools were included in the sampling frame only if they served Title VII students in at least one grade in the K-6 range. Certain schools such as those serving grades 6-8, 7-9 or 7-12 were excluded from the sampling frame because school programs at the middle or high school level usually differ markedly from those at the elementary level, and the total sample size of 60 was not large enough to represent such diversity adequately. Schools serving only Title VII special education students were also excluded since these programs also differ from the general elementary school program.

The number of schools selected in each project varied with the number of Title VII project schools serving students in the elementary grades. Therefore, one school was selected where only one school served such students; two schools were selected where the project served two to seven schools in the K-6 range, and four schools were selected where eight or more schools in the K-6 range participated in the project.

The schools were randomly chosen with equal probability of selection within each district's pool of relevant and targeted schools. All schools which were selected agreed to participate. The principal of each selected school was interviewed as its key administrator.

2.2.2.4 Selection of Grades and Teachers

Within each of the selected schools, all targeted classes in the kindergarten through sixth grade range were stratified into the following four grade range groupings: kindergarten, first grade, second and third grades, and fourth through sixth grades. These strata corresponded to levels where differences in program emphases were likely to occur. The sampling goal was to:

(a) Randomly select four teachers from each of the four grade ranges (as available) in each site having one or two schools, and two teachers per grade range per school in a site having four sampled schools; and then

(b) Randomly assign half of those teachers within each grade level to be administered a full teacher interview and the other half to be administered the Classroom Skills Inventory (CSI).*

Thus, teachers were randomly sampled within each selected school and its four grade range groupings. More specifically, at sites with one school, a maximum of 16 teachers, four from each of the four grade ranges, were to be interviewed. At sites with two schools, 16 teachers per school were to be interviewed, four from each of the four grade ranges in each school. At sites with four sampled schools, eight teachers per school were to be interviewed, two from each of the four grade ranges in each school. When the number of available teachers within a specified school and grade range was smaller than the sampling goal, all teachers were selected. They were then randomly assigned to be administered either the full teacher interview or the CSI instrument.

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*See Section 2.3 and Appendix 2 for a description of Study instrumentation and their major topics.

To select resource teachers working with Title VII projects, an additional sampling frame was created for each sampled school. This sampling frame contained teachers and other personnel who were working with the project in any of the following roles: resource teachers, resource specialists, grade coordinators, curriculum specialists, ESL specialists, reading specialists, bilingual liaisons, learning disabilities teachers, evaluation specialists, guidance counselors, subject matter specialists, and similar categories. The sampling rate varied with the number of resource teachers per site. Selected sections of the full teacher interview form were used with this group.

2.2.2.5 Selection of Teacher Aides

A total of 275 teacher aides were sampled. One aide was selected for each of 253 sampled classroom teachers. Since certain sampled classroom teachers had no aides, an additional 22 aides were randomly selected from the pool of aides working with resource teachers in targeted classrooms.

2.2.2.6 Other Respondents

Sampling was not required for the following groups of respondents as there was usually one of each per project and their role in the district or project made them the most valid data source. These respondents were:

- District superintendents;
- District coordinators of federal programs;
- Project directors; and
- Parent advisory committee chairpersons.

2.3 Data Collection Instruments

Fourteen instruments (including one with seven K-6 functional grade-level versions) were developed for this Study, as follows:

- Project Director Mail Questionnaire;
- Parent Advisory Committee Chairperson Mail Questionnaire;
- LEA Superintendent Interview Guide;
- LEA Coordinator of Federal Programs Interview Guide;
- Project Director Interview Guide;
- School Principal Interview Guide;
- Teacher Interview Guide;
- Classroom Skills Inventory (seven grade levels);
- Teacher Aide Interview Guide;
- Parent Advisory Committee Chairperson Interview Guide;
- Document Review Form;
- Application Plans and Objectives Data Recording Form;
- Case History Topic Outline Guide; and
- Case Study Guide.

Work on instrument development followed an extensive review of Study goals, other implementation evaluation studies, policy issues affecting the Study, instrumentation developed for related studies,* and similar topics. Draft versions were reviewed internally by the Project and Associate Project Officers, and the Study's Policy and Technical Advisory Panels.** Pilot-testing of instruments occurred in the spring of 1980 at six different sites. Adjustments in item content, format, and instrument length were made as needed to improve the usefulness of the instruments and their ease of completion.

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*These include the data collection instruments (or topic categories) used by: Danoff (1968), Sumner et al. (1975) and several bilingual education studies conducted by Development Associates, Inc., including a study of the State of California's program (Jones, Robles, Munoz and Berkowitz, 1980).

**The Study's Policy Advisory Panel advised the Study staff on matters dealing with the relationship of the Study to previous research efforts, appropriate policy issues to be addressed by the Study, and federal policy implications associated with the results. The Technical Advisory Panel advised the Study staff on matters dealing with instrument design, data collection procedures, data analysis procedures, and the interpretation of results. (See Appendix 3 for a listing of panelists' names and affiliations.)

Appendix 2 provides a listing of the major topics included in each instrument. It was desirable to obtain application-level information on project goals and objectives, therefore, OBEMLA files were used as a source of each project's first year funding applications. These first year funding applications were inspected for the presence of project goals and objectives, using the Application Plans and Objectives data recording form.

One instrument was particularly relevant to Study goals. The Classroom Skills Inventory (CSI) consisted of two parts: Part A - teacher characteristics items; and Part B - an inventory of oral, reading, and writing skills. These were considered likely skills which students would need to function effectively in an all-English-speaking classroom at various grades. The CSI therefore included lists of English-specific skills in such areas as: Oral Language, Reading, Spelling, Written Language, Classroom Directions, Oral Vocabulary, and Passive Vocabulary. The skills were taken from the Language Skills Framework (LSF) developed by SWRL Educational Research and Development of Los Alamitos, California, under the contract titled, "Resources for Developing a Student Placement System for Bilingual Programs: Language Skills Framework" (SWRL, 1980).

Each teacher who was administered a CSI was first asked to identify the grade levels at which his/her LEP students were functioning in English Language Arts. The teacher was then given the instrument for the grade at which he/she reported the largest number of LEP students were functioning. Each functional grade's instrument generally contained items graded at: two grades below, one grade below, on-grade level and one grade above grade level. For example, skill areas included in the instrument for functional grade four included LSF second, third, fourth and fifth grade skill level items. No instrument contained items of pre-K skill level or any items greater than the 6th grade skill level, with the exception of a set of 24 Passive Vocabulary words from the LSF which was included on all instruments. These Passive Vocabulary words generally are acquired by English-speaking natives prior to kindergarten. (For more specifics on CSI instrument content, see Section 6.1.2.) Teachers were asked to indicate whether or not these students would be "taught" (or in some other manner would learn as a result of participating in the project) each of the identified skills during the current school year.

Teachers responding to the CSI were also asked to consider whether the objectives they were using to teach mathematics, social studies, and science varied, depending upon whether the students were English proficient or limited English proficient. If the objectives varied, the teachers were asked to specify how the objectives differed in terms of pacing and content. Teachers were also asked about other special needs of their limited English proficient students.

The Study staff emphasize, as did this Study's Policy and Technical Advisory Panels, that socialization and other types of skills or factors also determine whether or not a student participates effectively in an all English-speaking classroom. These skills were not measured by the CSI.

2.4 Data Collection Procedures

Data collection was preceded by the following activities:

- Each Chief State School Officer received a memo supporting the Study from the then Deputy Assistant Secretary, Office of Evaluation and Program Management, U.S. Department of Education.
- Letters were sent to each State Title VII Coordinator and to each state's representative on the Committee on Evaluation and Information Systems.
- A letter was sent to each Superintendent whose LEA had a Title VII Basic project explaining the Study objectives and data collection plans.
- Each project director of a project in the site visit sample received a telephone call and follow-up letter explaining the study, scheduling the site visit, and requesting that certain appointments be made prior to that visit. In addition, a letter of support was sent to each project director from the Director of OBEMLA.
- A descriptive brochure explaining the Study goals, contractors involved, and time frames was sent along with each of the above protocol letters.

2.4.1 Mail Survey Data Collection

For mail questionnaires, an updated roster of all funded projects was used as the basis for the initial mailing, and for a computerized and manual questionnaire receipt control system. This latter system was also used in checking trends in non-response patterns. The Project Director Mail Questionnaire and the Parent Advisory Chairperson (PAC) Mail Questionnaire were each packaged in separate envelopes and enclosed in a larger envelope addressed to the project director. The project director was instructed to complete his/her questionnaire, to distribute the PAC chairperson instrument, and to followup with the chairperson as needed to ensure a response.

Projects not responding to the mail survey were contacted to encourage questionnaire completion or to determine the reason for non-response (for either or both forms). Duplicate forms with cover letters were re-mailed as needed, and were followed up with telephone calls to encourage response. Projects returning one form and not the other were also telephoned to motivate response. The monitoring process extended over several months and had several components, as mentioned above. It also included three to five telephone calls to all nonresponding project directors within each stratum of the IDAS K-6 sampling frame, to minimize non-response biases in the pattern of findings. Thus, as a final stage of the follow-up process and because Study priorities called for relatively more attention to K-6 projects, a 50% random sample was taken of nonrespondents from projects serving grades 7-12 who had not yet returned either a project director or PAC chairperson form. This sample was telephoned on three to five occasions to minimize nonresponse bias in findings.

2.4.2 Site Data Collection

The mail survey phase was conducted prior to the onset of site visits, which took place between January and March 1981. The site visit phase and the mail survey phase overlapped slightly. All field data collection procedures at the 60 visited projects were based on the pilot-testing experience with similar projects, site visit protocol procedures which were put into effect prior to all visits, and the Study staff's cumulative experience of collecting information from school districts and other local educational agencies in bilingual and similar settings.

The systematic field data collection process included:

- A comprehensive four-day formal training session for all field staff supervisory personnel, based on a field procedures manual;
- Designation of field staff and team leader responsibilities, linked to central office supervisory personnel who acted as overall coordinators to deal with contingencies;
- Administrative procedures for handling of forms, on site checking for completeness of data collection, and document reviews of project files;
- Procedures for conducting courtesy interviews upon leaving sites with district administrators and project directors, and preparing a courtesy "thank you" letter shortly after the completion of the visit; and
- Color-coded forms to: (a) make it easier to distinguish each of them for interviewing purposes, and (b) facilitate the sorting and editing process in the precomputer phase of data processing activities.

In addition, bilingual staff were assigned to sites which matched their language competence. This increased rapport with respondents and created empathy with the cultural groups being served.

All of the above mentioned features of the field data collection procedures served to make the process a smoothly functioning one. Sampled projects were quite cooperative. In fact, numerous instruments contained marginal comments supplied by respondents to ensure that the field visitor fully understood the item response.

2.4.3 Response Rates

Table 2.1 presents the numbers of respondents who supplied information during the Study. As indicated in the following sections, there

TABLE 2.1

NUMBER OF RESPONDENTS/RESPONSE RATES FOR MAJOR DATA COLLECTION FORMS

Approach/Type of Form		Number Obtained	% Response
Mail Questionnaires to 524 Projects			
Project Director Mail Questionnaire		402[1]	78[6]
Parent Advisory Committee Chairperson Mail Questionnaire		316[2]	62[7]
Visits to 60 Projects and Their 118 Schools			
LEA Superintendent Interview		59	98
LEA Coordinator of Federal Programs Interview		59	98
Project Director Interview		60	100
School Principal Interview		118	100
Teacher Interview		447	*
Classroom Teachers	277		
Resource Teachers	170		
Classroom Skills Inventory		266[3]	
By Functional Grade Version[4]			
K	85		
1	66		
2	44		
3	36		
4	21		
5	9		
6	5		
Parent Advisory Committee Chairperson Interview		56	93
Teacher Aide Interview		275[5]	*
File Review of Information From 60 Projects			
Project Document Review Form		60	100
Application Plans and Objectives Data Recording Form		47	78

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[1] Actual responses were 378 forms, with those project directors who administered two or three projects being counted for each project.

[2] Actual responses were 285 forms, with those representing two or three projects being counted for each project.

[3] Excludes 17 other teachers who only provided usable Part A (teacher characteristics) information.

[4] This usually does not correspond to the actual grade being taught by a teacher, since the majority of his/her LEP students may be functioning at a lower grade.

[5] Includes 22 aides working with resource teachers.

[6] Computed on the basis of a universe size adjusted for 8 project directors not permitted to respond by central boards.

[7] Computed on the basis of a universe size adjusted for 8 project PAC chair persons not permitted to respond and for 3 PACs not in existence.

*Universe varied by project; Response rate not relevant.

generally was a relatively low level of non-response and unavailability of designated respondents was not a problem.

2.4.3.1 Mail Questionnaire Response Rates and Non-Response Patterns

The Study staff attempted to determine what accounted for mail questionnaire non-response levels. After reviewing a number of potential explanations, it was determined that two factors were primarily associated with non-response for the project director mail questionnaire: whether or not the project served only grades 7-12 (in the continental United States), and geographic region. For PAC mail questionnaires, the only factor found to be strongly associated with nonresponse was whether or not the project only served the 7-12 grade range. These non-response factors were used in the weighting of the mail survey data.

Minimal non-response occurred during site visits. When it did occur, it generally was due to: a respondent's "not existing" (e.g., a single person was both the superintendent and the coordinator of federal programs in one instance), or illness.

One type of site document had a relatively higher level of non-response or unavailability. At the time that they were needed for analyses, 13 projects' first year funding applications could not be located in federal files, although searches were made for them. Thus, the project application characteristics were based on 47 applications. The data were then statistically adjusted for this unavailability in the following way. Cross-tabulation analyses of project background characteristics were run which indicated that project size, in terms of the number of students (as grouped into four categories), was most related statistically to the availability of funding applications. In each of those four cells, the total number of projects from among the 60 was therefore divided by the corresponding number of projects whose applications were located. These ratios were then multiplied by each project's selection weighting factor. (See Appendix 9 for further detail.)

The 378 project director mail survey forms which were returned and were usable represent 402 of the 524 funded projects (K-12). (Project directors who administered multiple Basic grants within a single school district were asked to use a single mail questionnaire, rather than complete one form for each project. The latter was considered an unreasonable respondent burden; such forms were therefore weighted appropriately.) The project director mail survey response rate (78%; 402 of 516, i.e., adjusted for eight not permitted to respond by their central boards) represents one of the highest rates ever achieved in the field when contacting bilingual education project directors. Because of this level of response, the data were considered generally representative of project directors, and therefore could be readily used with the Study's statistical data analyses.

Similarly, the 285 PAC Chairperson mail survey census forms represent a total of 316 projects. One must recognize that the respondents are parent advisory council chairpersons, generally members of a community group unfamiliar with completing detailed questionnaires. The response rate of 62% (based on 316 of 513, excluding eight projects not permitted to respond by their central boards and three PACs not in existence at the time) is therefore viewed as reasonably adequate. Certainly, a higher response rate would have been desirable. As stated earlier, multiple contacts were made to encourage PAC responses and it is doubtful if a much higher response rate would have occurred had more resources been expended on follow-up activities.

Given the PAC realities, this response rate may be considered to be at acceptable levels. However, conclusions based on the PAC chairperson mail survey data should be viewed cautiously. This is particularly true for PAC chairperson data from projects serving the 7-12 grade range. Table 2.2 presents the corresponding mail survey response rates for PAC chairpersons and project directors.

2.4.3.2 Characteristics of Responding Teachers

A total of 283 teachers were randomly selected to receive the Classroom Skills Inventory. Of this number, 17 were unusable because they

TABLE 2.2
MAIL SURVEY RESPONSE RATES BY QUESTIONNAIRE TYPE AND GRADE RANGE PREDOMINANTLY SERVED

Questionnaire	Grade Range	Response Rate
Project Director	K-6	82%
	7-12	63
	Overall	78
Parent Advisory Committee Chairperson	K-6	66
	7-12	46
	Overall	62

completed only Part A (teacher characteristics) and did not provide the key Part B (skills addressed) information.*

The characteristics of the 277 classroom teachers who were administered the full teacher interview and the 266 teachers who completed both Parts A and B of the Classroom Skills Inventory were statistically compared to determine the similarity of characteristics of the two sets of teachers. It was found that the 266 classroom teachers who supplied full CSI data were highly similar to the 277 classroom teachers randomly assigned and administered the full teacher interview instrument. On almost every teacher characteristic measured, the two sets of teachers were similar to each other, i.e., in years of experience, grade assigned, highest degree held, bilingual education training, and native language facility. Thus, it was concluded that the findings from either the full teacher interview or the Classroom Skills Inventory were generalizable to the other set of teachers.

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*Of the 17 teachers, six were excluded as not being relevant; another 7 did not complete Part B (a self-administered section) while field staff were on site, and despite multiple telephone and mail followups did not return that part of the form; one teacher refused to complete Part B; two carelessly completed Part B by supplying an improbably low number of classroom skills being addressed; and one teacher was inadvertently supplied an inappropriate form.

2.5 Weighting Factors Used to Make Data Representative

All data presented in this Study have been weighted either to be statistically representative of the universe of (a) projects or (b) individuals from which a sampling unit was selected. These weights also have been adjusted when necessary to reflect mail survey instrument non-response, and the minimal site interview instrument non-response which occurred.

The weights which have been used represent the reciprocals of the probability of selection (or sampling fraction) for respondents within a particular stratum; this is true for all sampling units. Thus, for example, principals' data were weighted by using the reciprocal of the probability of project selection, in turn multiplied by the probability of school selection within that project. Certain weights are therefore fractional weights rather than whole numbers, which introduced occasional rounding into the findings.

Two types of project weights were used for the two mail survey instruments, those making data either representative of the universe of all grantees (N = 524) or of the sub-universe of K-6 projects (N = 401) from which the 60 sites were drawn. The 60-site respondent data were weighted so that it was representative of the members of the sub-universe of 401 K-6 projects (e.g., of superintendents, principals or classroom teachers).

For most analytic work weighted data for the 60 site samples, which was projected to be representative of all K-6 projects, were rescaled to a size of 60. This retained the representativeness of the site findings. It also eliminated the possibility that an augmented number of cases would result in a misleading number of statistically significant findings. A fuller discussion of weighting and non-response adjustments appears in Appendix 9 for interested readers.

2.6 Estimation of Variances

The weighting factors used in this Study permit estimation of parameters which portray project, student and teacher characteristics. At the same time, variance estimates (or sampling errors) establish how much confidence can be placed in a particular estimate for planning purposes. Thus, it expresses how likely it is that a given point estimate represents the actual level that exists in the universe of federally-funded bilingual education projects to which the present Study's findings can be generalized.

A more precise description of the variance estimation procedures which were used, and the obtained sampling errors corresponding to particularly relevant parameter estimates, appears in Appendix 10 of this Report.

2.7 Data Management and Analysis

All site and mail data collection instruments were coded and edited by trained personnel. All instruments were reviewed at several levels for incomplete or unreadable responses and inaccurate, out-of-range, implausible or logically inconsistent entries. All manual editing and insertion of updated information was done by trained coders under supervision. Such information included identifiers and sampling weights. A Coders and Editors Manual was developed for training and on-the-job use. All coding was conducted under formal, ongoing supervision and periodic review of the work done.

Open-ended responses were coded after research analysts versed in bilingual education issues reviewed responses and developed coding frames. This was done for all relevant "other, please specify" and open-ended interview items. Coding frames were reviewed for validity, uniformity and usability, and revised as needed before being given to coders. An additional coders' manual (termed the Update Manual) was developed which listed all specially created response categories not found on questionnaire forms. Coders were trained in the use of this manual before beginning full-scale work.

2.7.1 Computer Data Base Editing and Management

Following manual edit and coding procedures, all forms were grouped by type and turned over to a keypunching facility (Mailing List Systems, Inc.) accompanied by detailed keypunching instructions for each form. All instruments had been designed for direct keypunching. In view of the diversity of survey item formats and number of data collection instruments, 100% independent verification by the keypunching facility was performed.

Computer editing was conducted using specific editing instructions devised for each type of form. This generally consisted of checks for completeness, accuracy, internal consistency, and out-of-range values.

2.7.2 Data Analyses

All analyses used in this Study were based on a detailed analytic plan which recommended analytic techniques, variables to be used, and discussed relevant issues. The actual analyses used in this Study began with traditional approaches to understanding the descriptive characteristics of variables. For example, multiple bar graphs and frequency polygons were used extensively with the CSI. Analysts then proceeded to use correlational and more sophisticated analytic procedures in an attempt to understand the interrelationships among those variables, and the extent to which certain subsets of them were associated with implementation indicators. Analyses were conducted with several types of respondents, to triangulate findings and thus attempt to have a pattern converge. The "practical significance" of the findings was also considered. That is, the data were reviewed to ascertain if their relationships or differences were large enough to be of practical import.

For the most part, the key unit of analysis was the ESEA Title VII bilingual education project, as the entity which was implementing a funding application and program. However, it also was recognized that other types of data sources, such as classroom teachers and resource teachers, represented key personnel in the implementation process, and were therefore important in their own right as units of analysis.

2.8 Approach to Assessing Key Project Characteristics

Many different community, school, and project characteristics can affect a project's instructional program and activities. These factors include, for example, the particular language groups served; the number of language groups served; the ratio of LEP to non-LEP students; the ethnicity concentration in particular target schools; general bilingual program philosophy; the tradition of bilingual program operations in the school system prior to the onset of ESEA Title VII; the presence or absence of multiple project funding sources; the availability of certified bilingual teachers; grade level concentration of the program emphasis (e.g., K-3, 4-6); and the degree of community and parent involvement.

Many more characteristics may impinge upon the instructional program than possibly could be assessed within a single study of a set of programs. Hence, it became useful to intensively examine a small set of characteristics which could demonstrate program variability and whose influence on projects could be understood. Having a knowledge of these projects would then facilitate future project planning in the light of Study findings. Table 2.3 presents the number of projects on each of these characteristics for both the 60 site-visit sample and the mail survey universe, as well as for the universe's two key sub-universe (projects serving grades K-6 and those either serving pre-kindergarten or those serving grades 7-12 only). How the Study treated each of these factors is discussed below.

The project size factor might be examined through either of two factors, fiscal resources or number of students served.* Because Title VII is designed to assist the instructional process rather than to serve as a conduit for funds distribution, the number of students served was selected. The number of students served, however, can fluctuate to a considerable extent across a project's life and even within a school year. It is unlikely, however, that small increases in the number of students served would result in meaningful programmatic differences. Therefore, the number of students was represented by the four-category variable used in

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*Since Title VII is not an entitlement program as is, for example, Title IV, Part A (Indian Education), these two factors are not perfectly correlated; each has its own merits.

TABLE 2.3

DISTRIBUTION OF SELECTED PROJECT CHARACTERISTICS FOR SITE-VISIT SAMPLE AND UNIVERSE

Site-Visit Sample of K-6 Projects		Mail Survey Universe		
Selected Characteristics	(N=60)	Grades K-6 (N=401)	Grades PK, or 7-12 only (N=123)	Total (N=524)
Application Type				
New	16	98	37	135
Old	44	303	84	387
(No Data)			(2)	(2)
Project Size				
Less than 200	17	116	19	135
200-399	21	137	48	185
400-799	15	97	24	121
800+	7	51	14	65
(No Data)			(18)	(18)
Number of Languages				
1	45	316	70	386
2	5	33	20	53
3	5	25	5	30
4+	5	27	10	37
(No Data)			(18)	(18)
Types of Languages				
Native American Only	6	44	0	44
Spanish Only	37	239	61	300
Asian Only	1	7	6	13
Other Single Languages	1	25	4	29
Two or more Non-Spanish	8	25	5	30
Spanish and Other	7	61	29	90
(No Data)			(18)	(18)

the selection of the site-visit sample: less than 200 students; 200-399 students; 400-799 students; 800 or more students. Because so few very large projects (800 or more students) were present in the 60 site-visit sample, the two largest categories were collapsed for analyses involving the site-visit sample.

Project age was selected to provide a basis for comparing first-year projects with those having more bilingual project operations experience. Thus the project age dimension was represented by a two-category variable: first-year or "new" projects, and "older" projects (in their second or succeeding years). This was a way of categorizing projects in various years of the current OBEMLA funding cycle. However, it must be remembered that although a given Title VII project may be in its first year, the school district may have received Title VII funds for other, perhaps similar, projects in the past. Furthermore, a district may have used other funds for working with LEP students across a number of years. The project age variable was used as one of the bases for comparison, with care being used in its interpretation, as noted above.

Languages served may be expected to affect program operations in at least two ways: the number of languages served and the specific languages served. A project which has to serve many different languages is likely to use different strategies for program operations than a project which serves only one language. Similarly, projects which serve a language such as Spanish, for which many diverse materials are available, may use different strategies than a project which is serving a language for which few (or only textbook) materials are available.

The number of languages served by individual projects ranged from 1 to 25. However, there were only 37 funded projects, 5 in the sample of site visited projects, with more than 4 languages. Therefore, number of languages was represented by a four-category variable: one language, two languages, three languages and four or more languages. The use of this variable was limited, however, since the number of languages per project was strongly correlated with the potentially more useful variable, languages served.

The specific languages served by individual projects were categorized into six groupings: Native American; Spanish only; Asian only; Other, Miscellaneous single languages; Two or more non-Spanish languages; and Spanish plus other languages. In a few situations, analyses were conducted by regrouping the six categories into four groups. These groups were: Spanish only; Native American languages; Asian and other non-Spanish languages; and Spanish plus other languages. However, the relatively small and unequal numbers of projects in each group made interpretation difficult. The four groups were regrouped into two groups: Spanish-only; and Other, and the analyses were re-run.

Interactions among these four major variables, i.e., application type, project size, and number and type of languages, may also be expected to relate to program characteristics and activity. Therefore, although the number of projects in each individual cell was quite often small, the two-way interactions among these four variables were examined.

In addition to the above four project characteristics variables, a typology was used in order to: (a) readily obtain from local project personnel their perceptions of the nature of their Title VII operations and some insights into the way in which local staff viewed their projects, and (b) categorize information so that comparisons could be made across projects, and respondents. An adaptation of the Fishman-Lovas (1970) typology was used; its content and implications are presented below.

2.9 Approaches Used to Identify Language Instruction Strategies in Title VII Projects

From the earliest implementation of bilingual education, the terms "transitional" or "maintenance" have been commonly used to describe the essential language thrust of programs. Irizarry (1972) described transitional as "advocating a shift to instruction solely in English as soon as the student can perform successfully in English" and maintenance as "advocating the development of language skills in both English and the native language." Later, the Danoff (1978) Title VII evaluation reduced the definition of transitional to "the transfer of students into a regular classroom once they can understand the language of instruction (English)" and defined maintenance as "the retention of students in the bilingual project with the continuation of their (primary) language instruction and with subject matter...taught...in the (primary) language." Baker and de Kantor (1981) described transitional as the phasing out of the primary language and phasing in of English. Thus, the sense and use of the terms depends on the programmatic context in which they are used. Given this, the Study staff felt that using these terms during interviews with school and project personnel would result in unusable data. Therefore, the Study staff turned to the Fishman-Lovas typology as one means of obtaining information about language use from project directors and other staff members. This typology was made up of five categories as follows:

Type I	"English as a second language" is taught to Limited English Proficient students; all other subjects are taught in English;
Type II	The native language is used only until the student can function in academic subjects taught in English;
Type III	The native language is taught orally, but reading and all other subjects are taught only in English;
Type IV	Reading is taught in both languages, and other subjects are taught in English; and
Type V	All subjects are taught in both languages.

Categories II-V of this typology actually correspond to the Fishman-Lovas schema (1970). The Study staff felt that this typology would be more complete by including another prevalent type, i.e., "English as a second language is taught to limited English proficient students; all other subjects are taught in English." This became Type I in the Study.

The Fishman-Lovas typology and several others developed in the early 1970s reflect the provisions and interpretations of the 1968 Bilingual Education Act. Thus, Pena (1972) defined bilingual education as: "the use of two languages, one of which is English, as mediums of instruction. Both languages must be used...in part or all of the curriculum." The language of the 1978 amendments, however, was modified to state: "there is instruction given in, and study of, English and (to the extent necessary to allow a child to achieve competence in the English language) the native language of the children of limited English proficiency".

In using the modified Fishman-Lovas typology as a guide for obtaining local project impressions and perceptions, the Study staff was well aware of the limitations inherent in this (and for that matter, in any other) typology. As a conceptual device, it has a strong tendency to "force" respondent choices into the types listed, and it does not easily accommodate variations or programmatic combinations. (A limited number of respondents did supply such combinations, which were added when feasible.) For example, the typology was very difficult to use when categorizing approaches being used with specific subject matter. It therefore had to be used at a gross overall project level. Also, some teachers and project directors stated the use of one type for a particular period of time (or certain grades), or with a particular set of students. Still other types were needed for different grades with the same set of students. It should be kept in mind that Title VII bilingual education projects (and probably other resource-defined educational projects) are dynamic and fluid, and very often have to adjust their curriculum and scheduling to fit LEP students' needs. Thus, the typology was not as sensitive or flexible as desired in reflecting what LEP students actually receive.

All these caveats aside, the Study staff felt that the use of the modified Fishman-Lovas typology presented a device for categorizing, albeit in a broad sense, the way in which project directors and other personnel viewed their instructional approaches.

The typology was also used as one means of attempting the discovery of distinctly different instructional approaches. The various respondent groups included in the Study were given the identical typology; the data results showed patterns in how the respondent groups viewed their projects, and it helped in grouping projects according to types. The typology was also helpful as a descriptive tool and was used in combination with other variables for several purposes. The Study used it to make distinctions among groups of projects in various areas, for example, applicable legislation, and teacher backgrounds. Finally, the typology was useful as an analytic tool and was helpful as a screen through which data were sifted on pull-out incidence and languages used to teach reading, among other variables.

Since current legislation is clear in its mandate to stress developing proficiency in English, it is important to view the program from that perspective. The Study does analyze the various types from an English-use perspective. Viewed this way, Types I (English only) and Type V (both languages equal) lie at the extremes of English use, with Types II-IV being characterized by a major emphasis on English with some variability on the extent to which the native language is stressed.

In addition to use of the typology, information about language use at the level of the individual subject was collected from project directors who were asked whether they used either English or the native language exclusively, or whether they used both at each of the project's grades in reading, math, social studies, science, and cultural enrichment. Data on the proportion of grades which used either one language exclusively or both English and a native language were subdivided for analytic purposes. That is, language use in the kindergarten through grade six sequence was differentiated from language use across all grade levels. Grade six was chosen as the cut-off point for two reasons. First, this Study's primary focus is on the elementary grade levels and much more information is therefore available for those levels. Second, while different school districts divide grades into different sequences, grade six is often the last grade in the elementary sequence. Teachers were also asked to report the percentage of time that they used the native language for instruction in each of the following subjects: English as a Second Language (ESL), English reading and language arts, native language reading and language arts, math, social studies, science, cultural enrichment, and other subjects.

The use of aides in instruction and the use of pull-out also provided information on the matter of approaches. While this information was obtained at the project and school levels as well as at the classroom level, the report focuses primarily on the classroom level information which teachers provided for each of the several subject areas mentioned above.

In summary, a variety of methods were used to identify the projects' approaches to language instruction. In the next section there is a discussion as to how they were used to meet project objectives.

2.10 Approaches Used to Address Study Objectives

As noted in Chapter 1, the Study focused on three objectives. The analytic methods used to address each of these objectives are discussed below.

Study Objective 1a: To describe characteristics of a representative sample of Title VII - funded Basic bilingual education projects.

Project descriptive information was obtained for the universe of Title VII projects through the mail survey to the project directors and PAC chairpersons. It was also obtained through the interviews conducted with district and project staff during the 60 site visits.

In addition to computing descriptive summary statistics (e.g., means and percents, as appropriate) the Study examined their relationship to the project characteristic variables described earlier. Categorical project characteristic variables were examined by using contingency tables and chi square approaches while continuous variables were examined using ANOVA techniques. The .05 significance level was used in both cases. For Scheffe multiple comparison tests, a .10 level was used.

Chapter 3 presents a discussion of the information obtained about the universe of projects, while Chapter 4 presents a discussion of the information obtained about the staff of the projects.

Study Objective 1b: To identify groups of projects which appear to represent distinctly different instructional approaches to the education of children with limited English proficiency.

This report addresses this objective in four ways. First, it discusses individual descriptors of project approach (i.e., the language of instruction and staffing patterns). Second, it discusses how these individual approach descriptors appear to be related to several project design characteristics (e.g., project size). Third, it discusses the results of an empirical attempt to group projects based on their responses to several questions about their instructional approach. Finally, in a separate volume, it presents case histories of bilingual education projects as examples of different approaches.

To ascertain if the individual approach descriptors were related to project design characteristics, chi square and F ratio tests were performed on categorical and continuous data, respectively. The .05 level of significance was used (for those design variables with more than two levels, the Scheffé test at the .10 level was also used).

Hierarchical cluster analysis was used in an attempt to ascertain if groups of projects could be identified which used distinctly different instructional approaches to educating LEP students. This set of analyses used both project director and teacher data which were aggregated to the project level. This work was conducted at the project level for the 60 site-visited projects because that was a meaningful level at which most information was available. The 16 variables included in these analyses are listed in Table 2.4. As the table shows, eleven of the variables used in these analyses pertain to classroom instruction. Five pertain to aspects of project management.

The hierarchical cluster analyses provided data which enabled Study staff to group projects into four or five sub-groups for further exploration. These sub-groups were then examined (by using analysis of variance techniques) to ascertain if they were different from each other on each of the variables which had been entered into the cluster analysis, and

TABLE 2.4
VARIABLES USED IN CLUSTER ANALYSES

Source	Major Variable	Categories of Variables or Related Variables
Teacher Interview	Percent of Time Native Language Used in Instruction	English Reading and Language Arts; English as a Second Language; Native Language Reading and Language Arts; Math; Social Studies; Science
	Use of Pull-Out	English Reading and Language Arts; English as a Second Language; Native Language reading and Language Arts; Math; Social Studies; Science
	Use of Aide	English Reading and Language Arts; English as a Second Language; Native Language Reading and Language Arts; Math; Social Studies; Science
	Percent of Time Native Language Used in Reading and Language Arts	None
	Percent of Reading and Language Arts Time Devoted to Native Language Reading and Language Arts	None
Project Director Mail Survey	Changes in Service	Number of LEP students; Intensity/amount of instruction; Number of subject areas taught; Instructional materials and equipment; Student assessment/diagnostic evaluation services; Home/school liaison services; Resource specialists; Aides; Consultant service
	Use of Both Languages for Instruction	Math; Reading; Science; Social Studies

TABLE 2.4 Continued

Source	Major Variable	Categories of Variables or Related Variables
	Language Used to Initially Teach Reading	Both languages; Dominant language; English; Varies
	Technique Used for Handling Variations in Proficiency	Subgrouping; Auxiliary staff; Team teaching; Differentiated staffing; Peer tutoring; Below grade level assignment
Project Director Interview	Use of English and Native Language	Two languages not used during same period; First half of period in one language; second, in other concurrent use; One language for teaching, other for preview and review
	Language Used to Teach LEP Non-Readers to Read	Native language; English; Varies; Both
	Areas of Project Director Control	Class scheduling; Amount of lesson planning time available; Amount of administrative time available; Provision of instructional facilities; Coordination of instruction; Teacher/student ratios; Evaluation of teachers; Direct supervision; Special disciplinary action with students; Materials and supplies; Staff development and training; Parent/community involvement plans; Student support services; Information dissemination; Office operation; Project evaluation
	School Supervision	Project operation; Project; Administrative staff; Project teaching staff; Project Evaluation

TABLE 2.4 Continued

Source	Major Variable	Categories of Variables or Related Variables
	Active Involvement in Program Implementation	Superintendent's office; Principals; Teachers; Bilingual parents/community
Project Director Interview	Inservice Training	Administrator participation; Provision of English language training to teachers; Provision of native language training to teachers; Provision of English language training to aides; Assistance in meeting certification requirements; Career development opportunity
	Prevalence of Teaching Pattern	Solo teacher; Teacher/teacher team; Teacher/team aide; Teacher/volunteer; Teacher/student teacher

on several additional variables. The variables and the results of the ANOVAs are presented in Appendix 7. Because patterns of differences across the four or five sub-groups were often difficult to interpret, the sub-groups were recombined into two sub-groups, based on information provided by the cluster analyses. The results of the analyses based on this sub-grouping are presented in Chapter 5 with additional details provided in Appendix 7.

Study Objective 2a: To determine the project objectives.

The Study examined this objective through a content analysis of initial project applications for the 60 site-visit projects obtained from OBEMLA files, and through an analysis of information obtained during the on-site interviews. The examination of the initial applications included examination of both long-term goals and annual objectives. Since long-term goals no longer need to be mentioned in funding applications, the Study's examination of them was limited to ascertaining their focus and the number of projects which stated them. In looking at annual objectives, the Study examined their focus, scope, and extent of specification. The Study also examined the level of consistency between the project application plans and the legislation. Chapter 3 presents a discussion on these examinations.

Information about project plans was elicited directly in semi-structured fashion from key project personnel during interviews. Discussion of this information is also presented in Chapter 3.

Study Objective 2b: To determine the relationship between skills actually addressed by the projects and those skills necessary to function effectively in an all-English-medium classroom in the United States.

The Study addressed this objective in two ways. First it asked teachers about specific language skills, and second it asked teachers to define how they addressed other special needs of their LEP students. For both of these, the Study built on the Language Skills Framework (LSF) developed by SWRL and used its own adaptation called the Classroom Skills Inventory (CSI). Chapter 6 both presents the results of this work and discusses the techniques used to synthesize the information obtained from the teachers.

Study Objective 3a: To determine the degree of program implementation among local education agencies.

This Study's assessment of program implementation is based primarily on self-report data and information obtained through an on-site review of relevant project documents, which included evaluation reports, project budgets and instruction materials such as lesson plans.* Within this framework, the Study examined implementation from two perspectives:

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*The Study did not measure implementation through observation because the emerging and changing nature of the projects would have required random sampling of observation points at multiple time points, and multiple time point sampling was not possible within the framework of this Study. Observations were conducted, however, to familiarize interviewers with the project.

- the extent to which projects had implemented their individual plans
    - in four general areas: staff development, classroom instruction, parent involvement, and project management;
    - in 36 specific areas (e.g. within the area of staff development: the extent to which projects had implemented their plans for: (1) assessing staff training needs; (2) college coursework for teachers; (3) college coursework for aides; (4) other inservice for teachers; and (5) other inservice for aides); and
- the extent to which projects had implemented certain specified instructional features (e.g., within the area of classroom instruction, whether or not teachers used aides to assist them in the instruction of specific subjects).

Information about the extent to which projects had implemented their individual plans in the four general areas was obtained from project directors, PAC chairpersons, and teachers during on-site interviews and is available for the sample of 60 projects. Project directors were asked about their plans for staff development and project management. PAC chairpersons were asked about PAC plans; and teachers were asked about their instructional program plans. Each respondent was asked to identify a specific project plan in each of four general areas and then to assess the extent to which the project had been able to implement that particular plan. For example, in the general area of staff development, the project directors were asked to identify and assess the extent of implementation of a specific plan in each of the following four sub-areas: professional inservice, paraprofessional inservice, other professional educational opportunities, and other paraprofessional educational opportunities.

Information about project implementation of specified features was obtained through the mail surveys, the on-site interviews, and the review of project documents on site; it is available for the sample of 60 sites. PAC features are discussed in Chapter 3; different aspects of the instruction, staff development, and project management are discussed in Chapters 3, 4 and 5. The Selected Case Histories volume provides additional insight into each of the four areas. In addition, throughout this volume, reference is made to appropriate cases in the Selected Case Histories volume which illustrate a particular point or finding, i.e., where they were relevant, footnotes to the text in this volume indicate a particular case or cases which have a bearing or illustrate a point.

Information about the extent to which projects had implemented their individual plans in the 36 specified areas of activity was obtained from project directors through the mail survey and is available for the universe of Title VII projects. The extent to which projects implemented their plans in both the four general areas and in the 36 specific areas is discussed in Chapter 3.

Composite and single-item indices of implementation were developed from these variables and others; reliabilities for composite measures are included in Appendix 10.

Study Objective 3b: To identify factors which enhance or impede project implementation.

Information about factors which may have helped or hindered the process of implementation was also gathered in two ways. First, project directors and teachers were asked directly whether or not specific factors helped or hindered the implementation process. Second, project and district staff were asked about a number of district and project characteristics which, based on implementation literature, might be expected to influence project implementation. The characteristics and factors which were most related to certain measures of program implementation, and the direction of those measures (i.e., positively or negatively) were then examined via a series of stepwise multiple regression analyses. These used various relevant sets of independent variables and dependent measures. Dummy variables having the values of "1" or "0" which indicated the use or non-use (or yes-no; or presence and absence) of particular project features were created as needed from variables and measures which initially were in categorical data format. Continuous variables (such as the number of hours provided in training) or rating scale variables (such as extent of SEA helpfulness) were retained in that format. Thus, information from each data source could be intercorrelated to address the Study objective of determining those factors which influence particular types of project implementation.

More specifically, these factors, or independent variables, were used in assessing their influence on: (a) the language used for instruction in seven different subjects; (b) the use of the pull-out model for instruction in those same seven subjects; and (c) the use of aides, again in the seven subjects. Each of these aspects of bilingual program operations reflects, in its own way, the manner in which programs are functioning, i.e., whether or not the native language, English or both are being used, or whether there is a pull-out or within-classroom setting. The extent to which aides have instructional roles can also provide some indication of the directions being taken by bilingual programs, overall, and by selected sub-groups. In turn, these directions can be viewed for their implications, consistency with other information, etc.

The examination of the classroom instructional component also included an assessment of the extent to which these various factors influenced (i.e., helped or hindered) the reported implementation of the project's planned instructional objectives, approach, curriculum, and entry-exit procedures. The examination of the management component included an assessment of the influence of the several factors on the implementation of project plans for evaluation, staffing, and dissemination. The variables used in the assessment of the staff development component included the reported implementation of the project's overall staff development plans, and the extent of staff training. Finally, overall implementation of the parent/community involvement component was examined. All of the above correlational analyses had the same overall goal: to assess those factors which were most associated with levels of project operations in particular areas.

The specific dependent measures of project implementation used for the project director and teacher analyses are presented in Table 2.5. Similarly the specific federal, state, community, district, school and

TABLE 2.5

SET OF DEPENDENT MEASURES OF PROJECT IMPLEMENTATION

VARIABLES	SOURCE
Pull-out use in instruction	Teacher
English reading and language arts	
ESL	
Native reading and language arts	
Math	
Social Studies	
Science	
Cultural Enrichment	
Average	
Aide used in instruction	Teacher
English reading and language arts	
ESL	
Native reading and language arts	
Math	
Social Studies	
Science	
Cultural Enrichment	
All subjects	
Percent Time Native Language used in Instruction	Teacher
English reading and language arts	
ESL	
Native reading and language arts	
Math	
Social Studies	
Science	
Cultural Enrichment	
All Subjects	
Use of both language in instruction across none/some/all	Project Director
Math	
Reading	
Science	
Social Studies	
Other	
Average	
Use of English only in instruction across none/some/all	Project Director
Math	
Reading	
Science	
Social Studies	
Other	
Average	

TABLE 2.5

SET OF DEPENDENT MEASURES OF PROJECT IMPLEMENTATION* (Continued)

VARIABLES	SOURCE
Staff development component	Project Director
Overall plans	
Inservice training proportion of teachers and aides	Project Director
Training (no/yes)	Teacher
Training or certification	Teacher
Training (hours)	Teacher
Instructional component	Project Director
Objectives	
Entry/exit	
Approach	
Curriculum	
Materials	Teacher
Management component	Project Director
Evaluation	
Staffing	
Reporting and dissemination	
Objectives	
Materials	
Parent and Community Involvement	Project Director

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*See Table 2.6, page 55 for the independent variables used to examine project implementation.

project-level factors of independent variables which have been examined in each of the multiple regression analyses are presented in Table 2.6. The results obtained from the sets of regression analyses (including overall levels of relationship or R^2 values, and which independent variables were most relevant in terms of their magnitude and direction) are discussed in Chapter 5.

2.11 Development and Use of Policy Questions

As part of the process of focusing the Study objectives and developing instruments, several policy questions were addressed based on the following information needs which ED explicated in the RFP: the degree to which projects are consistent with legislative intent; the factors which make implementation difficult; and the changes which must take place at the local educational agency (LEA) level for a bilingual education project to continue after federal funding is withdrawn.

With respect to the first information need, ED defined Study objectives which focused on project characteristics and project objectives. To address the second and third needs -- to learn what factors are making implementation difficult and what LEA change must take place if programs are to be institutionalized -- ED defined two more objectives: to assess the extent of project implementation and to ascertain the factors which enhance or inhibit project implementation. (Table 2.7 shows the relationship between ED's three information needs, the three Study objectives, and the policy questions which are discussed below.)

The first policy question focused on project characteristics and ED's need to ascertain the degree to which projects are consistent with the legislation: to what extent are projects' long-term goals and objectives consistent with federal law and regulations? Data related to this question are found in Chapter 3.

If factors such as organizational structure and process affect implementation, school systems with different types of organizational structures may have differential success in implementing different types of

TABLE 2.6

SET OF INDEPENDENT VARIABLES USED TO EXAMINE PROJECT IMPLEMENTATION

Project size (small/medium/large)
Project age (new/old)
Project language (Other/Spanish)
No. of languages (1-4+)
Class size

OBEMLA (helpfulness)
SEA (helpfulness)
BESC services (effectiveness)
EDAC materials (extent)
PD years as director
PD years as BE teacher
Inservice (proportion teachers)
Inservice (proportion aides)

Factors affecting implementation
- Federal
- State
- District
- School
- Community
- Project

Project Director involvement
- Evaluation
- Parents
- Review of student achievement

Project management (effectiveness)

PAC assistance in application development

Materials (adequacy)
- Instructional
- Equipment/supplies
- Parent/community

Training

- No/Yes
- Certification

Use of Hours Pull-Out (no/yes)

Use of Aide (no/yes)

Use of Native Language (no/yes)

TABLE 2.7

RELATIONSHIP OF INFORMATION NEEDS, STUDY OBJECTIVES, AND POLICY QUESTIONS

INFORMATION NEEDS	STUDY OBJECTIVES	POLICY QUESTIONS
• The degree to which implemented projects are consistent with legislative intent.	1. To describe the characteristics of a representative sample of Title VII-funded bilingual education projects and to identify groups of projects which appear to represent distinctly different approaches to the education of children with limited English proficiency.	
	2. To determine the project objectives, and the relationship between skills actually addressed by the projects and those skills necessary to function effectively in an all-English-speaking classroom in the United States.	• To what extent are projects' long-term goals, objectives, and operating characteristics consistent with Federal law and regulations? • In what ways has congruence/conflict among Federal and state law and local authority influenced the development of local project objectives? • What are the major reasons why Basic projects modify objectives? • Do certain types of objectives have a greater chance of being implemented than other types of objectives?
• The factors that are making implementation difficult.	3. To determine the degree of program implementation among local education agencies and to identify factors which enhance or impede project implementation.	• Do certain types of projects have a greater chance of implementing some types of objectives while other types of projects have a greater chance of implementing other types of objectives? • What factors appears to influence the process of implementation in either a positive or negative manner? • Is there a process of implementation which is more likely to be successful than other processes?
• The changes that must take place for a program to be institutionalized.		• What factors enhance/impede institutionalization?

objectives. For example, it may be easier to introduce changes which require considerable give and take among project and non-project staff into small systems than into large systems, where complex administration structures would require cutting much red tape. However, large systems may be much more able than small systems to introduce changes which require diverse sets of resources.

The next policy question was concerned with the ways that congruence or conflict among federal and state law and local authority influenced the development of local project objectives. Never designed as a policy question to be addressed to the same extent as others within this Study, it was nonetheless included in order to house certain data which would be collected. These data on the role of agencies which interact with the local education agencies (such as OBEMLA, and BESCs) are found in Chapter 4.

The next policy question focused on the major reasons why Basic projects modified their objectives. In retrospect, this question became somewhat moot since the analysis of the data indicated that projects tended not to modify their initial objectives. A related policy question looked at the chances of implementation of certain objectives as compared to the chances of others. The material in Chapter 3 therefore deals with goals and objectives, to the extent that it was feasible to do so.

The next policy questions focus on the extent to which successful implementation is dependent upon the type of objective and the type of project into which they are introduced: Do certain types of projects have a greater chance of implementing some types of objectives while other types of projects have a greater chance of implementing other types of objectives? The data associated with these questions are discussed in Chapter 3.

The last policy questions continued the exploration of factors which appear to effect implementation and capacity-building activities: what factors appear to influence implementation in either a positive or negative manner, is there a process of implementation which is more likely to be successful than other processes, and what factors enhance or impede institutionalization? Chapter 5 contains the data which relate to these questions.

2.12 Study Limitations

It is important to point out several factors which limit the Study and affect interpretation of its results. These are mentioned here for the benefit of readers seeking to utilize and fully understand the Study's findings.

- Only one 3-5 day visit was made to each of the 60 sample sites and trends toward improved bilingual program operations were therefore difficult to detect. The one-time visit to sites prevented the Study from assessing how projects were evolving, meeting their goals, modifying certain features of project activities, etc. A cross-sectional approach was necessary because trends in implementation efforts could not be determined from one visit. In order to partially adjust for this limitation, Study teams collected as much data as possible and in several forms during their visit to each project.

- The school and classroom level findings in this Study primarily came from projects serving the K-6 grade range. Thus, it is probably misleading to assume that those findings can be generalized to projects which predominantly serve the middle or high school grade ranges. Such projects may be using different implementation strategies, serving different types of students, addressing different skills, etc.

- The Study examined several sets of projects originally funded under two substantially different pieces of legislation, as well as under different sets of rules and regulations. One of the initial reasons for conducting this Study was to examine the programmatic consequences of the 1978 Education Amendments to ESEA Title VII. However, the development of regulations for those Amendments took considerable time, and projects in operation before the 1978 Amendments sometimes were modified to meet new requirements. These complications often made analysis and interpretation of findings from the site visit sample difficult.

- The study design and data collection instruments which were based on that design were finalized prior to the onset of the current federal administration. As a result, some of the topics included in the instruments did not fully focus on current policy shifts in funding allocations, capacity-building activities of local projects, and related issues. This is a natural consequence of any multiyear study which must finalize an evaluation approach at some point so that there is adequate time to collect valid information and sufficiently analyze it, yet which represents one input into ongoing policy planning. Although some of the topics included in this report are of relatively greater interest than when they first were included in the Study, it is believed that the findings bearing on such topics still are sufficiently covered.

- The overall vagueness of goal-setting, varying definitions of objectives from place to place, and the enormous gap between ideal goals and practical program plans tended to complicate the analyses which were conducted. These and other factors worked against using a relatively simplistic or direct way to defining Basic projects' goals and objectives, and contributed to certain ambiguity in some areas of expected findings, such as plans or objectives modification, definition of goals or goal statements, etc.

In summary, the Study design and methods chosen have deliberately sought to balance the need to provide a general yet lucid picture of bilingual project characteristics and operations, while also attempting to provide sufficiently detailed language so as to both: (1) identify and convey the real, significant findings of the Study, and (2) place them in context. Thus, this volume represents a compromise between general, concise reporting and a detailed, lengthy treatment, while providing a document which presents data, findings, and conclusions relevant to a variety of audiences including practitioners and policymakers.

The following chapters contain discussions of the universe of Title VII projects, project objectives and goals, classroom characteristics, implementation issues and characteristics, and skills addressed in Title VII classrooms. The document concludes with a chapter devoted to discussing and integrating the Study findings.

CHAPTER 3

PROGRAM STRUCTURE FINDINGS

This chapter describes the general characteristics, program structure, plans, and objectives of the ESEA Title VII Basic Program projects which were studied. The data were derived from several sources, including: project applications for the 1980-1981 year, mail questionnaires returned from project directors and the Parent Advisory Committee Chairpersons (PAC), interview guides, and document reviews. Information on the instruments used in the Study can be found in Appendix 2. The purpose of the chapter, in addition to discussing features and characteristics of Basic Program projects, is to set the stage for subsequent chapters, each of which deals with more specific areas or dimensions of the Title VII Basic Program.

3.1 Organizational Setting

The vast majority of Basic Program projects operate within a single LEA. Projects serve an average of 30% of the elementary, middle, and senior high schools within their districts. In a handful of cases, projects are jointly administered, usually by two wholly independent school districts, and serve schools in both. In a very few cases, this joint administration of the project is the result of the existence of one or more central schools (middle or senior high schools) serving both districts. Since this study primarily concerns itself with K-6, these schools were not part of the site visit sample.

In most cases the current Title VII project was a continuation or derivation of an earlier bilingual education project. In the sample of 60 visited projects, 90% reported that a bilingual education project of one kind or another had operated in the school system prior to the beginning of the current project. These earlier projects included prior Title VII projects, projects funded through other federal sources (e.g., Title IV), state-funded programs, and local bilingual education initiatives. Data showed that 74% of all Basic Program projects were more than one year old while 26% were in their first year of funding.

Most projects also reported that the Title VII Basic Program was not the only bilingual education program operating in the school system; 90% reported the existence of at least one other previous or current bilingual education program; 76% reported the existence of at least two previous or current programs; 43% reported at least three previous or current programs; 31% reported at least four previous or current programs; and 12% reported at least five previous or current programs. Again, these other programs were funded through various sources, including federal, state and local initiatives.

3.2 Project Goals and Planning

Prior to 1974, projects were required to address long-term goals in their initial applications.* However, the last two versions of Title VII legislation (1974 and 1978) and the regulations set forth during the late 1970s contained no such requirement. During the beginning years of ESEA Title VII (1969-74), a fairly strong emphasis was placed on using management-by-goals approaches. The then Office of Bilingual Education (OBE): (a) stressed management-by-goals approaches in regional conferences for applicants and grantees; (b) reviewed and critiqued the goals, objectives and evaluation strategies of individual applicants; and (c) developed and disseminated a manual which provided guidance on how to formulate goals and objectives. The use of management-by-goals approaches was carried over to some extent into subsequent funding cycles, although the emphasis on these approaches was never as heavy as in early years.

Long-term goals of Basic projects were examined intensively by reviewing the content of initial (first year) applications submitted by the projects in the site visit sample. Initial applications were selected for goal analysis because these applications are usually more detailed and often address required legislative and regulatory criteria pertaining to goals, objectives and plans. Since it was important to review their initial applications, and the projects had been operating from 1-5 years, applications submitted in different years (1976-1980) were reviewed. Applications from only 47 of the 60 site visit projects were available. Data were then statistically adjusted for the unavailability of the missing applications so that the application information was representative of K-6 projects, just as were all other interview and document data.

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*A goal is a general statement of future accomplishment which is broad in temporal scope and activity. It describes the activities and proposed attainments set out for the entire grant period being funded. Goals of an ESEA Title VII project invariably span more than a single year of operation. Projects, however, are funded on a year-to-year basis, although their grant period may be more than one year.

Of the initial applications, 42% specifically addressed or had a section on long-term goals. The average number of long-term goals found in new applications during the 1976-1977-1978 authorization cycle was 1.8. This average fell to 1.3 for the 1979-1980 authorization cycle. It is evident, therefore, based on project applications from the last two authorization cycles, that projects have decreased the number of long-term goals in their applications.

On the other hand, projects appear to have formulated long-term plans and used them, even though they were not required to be included in the funding applications. The data showed that 81% of project directors reported that "multi-year project plans" were included in their initial Title VII proposal; 34% of these said the plans had been modified since the application was submitted. Since the initial application, 78% of project directors indicated they had put into operation their multi-year project plans "to a great extent" or "to a very great extent."

Ninety-one percent of project directors indicated they had a written plan for administering their project. Ninety-four percent of those having a written plan also indicated that in general they followed this plan, and 71% indicated that written management objectives had been a part of their plan.

3.3 Annual Objectives*

The initial project applications which were reviewed listed a range of annual objectives or plans. Some of these were detailed narratives while others were brief or vague statements. The term "minimal objective" or plan is used here to refer to objective-like statements which indicate a particular area in at least a rudimentary fashion. Thus, a minimal objective may be a mere listing of an area or category (e.g., "English reading comprehension," "English listening comprehension," or "English proficiency") in an application without further elaboration or specification.

Table 3.1 presents the percentage of projects stating at least minimal objectives or plans for each project component. In order of their frequency of occurrence, objectives were formulated most frequently for instruction, management, staff development and training, parent and community involvement, and materials.

Table 3.2 gives the percentage of projects which formulated objectives and plans in the form of product objectives, process objectives, and evaluation plans for the various areas of instruction. Approximately three-quarters of the project applications formulated a set of product objectives, process objectives, and evaluation plans for the area of English language skills. About half of the projects formulated such objectives and plans for native language skills, math/science, and social science and cultural heritage. A fourth of the projects had such objectives and plans for the affective domain.

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*Objectives almost always describe activities or attainments for a single year of the grant period; they are frequently called "annual objectives." Title VII objectives commonly consist of two types: product objectives, which describe ends to be attained, and process objectives or "activities," which describe the means by which these ends are to be achieved.

TABLE 3.1

PERCENTAGE OF PROJECTS STATING ANNUAL OBJECTIVES OR PLANS AT LEAST IN MINIMAL FORM* BY PROJECT COMPONENT

(DATA SOURCE: INITIAL APPLICATIONS, N=60)

COMPONENT Objective Area	Percentage
INSTRUCTION	
English language skills	97%
Native language skills	67
Mathematics/Science	79
Social studies/Cultural heritage	82
Affective domain	38
STAFF DEVELOPMENT AND TRAINING	
Needs assessment for training	39%
District level inservice training	79
College and university coursework	68
Training by outside consultants and organizations	16
Certification	23
PARENT AND COMMUNITY INVOLVEMENT	
PAC structure and functions	35%
PAC assistance with planning	66
PAC assistance with evaluation	27
Informing parents about children's progress**	44
Informing parents of project goals**	48
MANAGEMENT/ADMINISTRATION	
Duties of project director	77%
Organizational chart	58
Bilingual education staffing plan	91
Employment of bilingual personnel	86
Project timeline(s)	51
Overall project evaluation	72
MATERIALS DEVELOPMENT AND ACQUISITION	
Instructional materials	39%
Training materials	0
Non-English language materials	20

*Based on the presence of only a listing or other rudimentary statement of a plan or intent in an application.

**Applicable only to FY 1979 and FY 1980 applications.

TABLE 3.2

PERCENTAGE OF PROJECTS SPECIFYING PRODUCT OBJECTIVES, PROCESS OBJECTIVES AND EVALUATION PLANS BY INSTRUCTIONAL AREA

(DATA SOURCE: INITIAL APPLICATIONS, N=60)

Instructional Area	Product Objectives	Process Objectives	Evaluation Plans	Any One of the Three
English Language Skills	78%	78%	74%	88%
Native Language Skills	50	46	44	53
Mathematics/Science	56	51	52	65
Social Science/Cultural Heritage	56	56	45	68
Affective Domain	26	24	23	30

Table 3.3 shows the percentage of projects which formulated product objectives, process objectives, and evaluation plans for the area of staff development and training. Approximately one-third of the project applications stated such objectives and plans for two training areas: LEA inservice training and college and university training.

TABLE 3.3

PERCENTAGE OF PROJECTS SPECIFYING PRODUCT OBJECTIVES, PROCESS OBJECTIVES AND EVALUATION PLANS BY TRAINING AREA

(DATA SOURCE: INITIAL APPLICATIONS, N=60)

Training Area	Product Objective	Process Objective	Evaluation Plans	Any One of the Three
LEA Inservice Training	30%	27%	37%	47%
College and University Training	29	27	35	45
Training by Outside Consultants or Organizations	3	3	5	5
Certification	13	9	11	18

3.3.1 Scope of Product and Process Objectives

In Tables 3.4 and 3.5, the scope of instructional product and process objectives, and training product and process objectives are presented as they were formulated in applications. Indices are based on the presence or absence of annual product objectives (or process objectives); i.e., a score of "1" for the presence of each of three sets of specifications present in an application - product objectives, process objectives, and evaluation plans. Tables 3.4 and 3.5 indicate that project applications tend to contain a greater number of product objectives than process objectives, and more objectives for instruction than for training. The internal consistency shown for the four indices on the two tables were generally adequate, ranging from .62 to .83.

TABLE 3.4

INDICES OF THE SCOPE OF INSTRUCTIONAL OBJECTIVES
FOR PRODUCTS AND PROCESSES

Index	Maximum Index Score	Mean	S.D.	Internal Consistency (Alpha Coefficient)
Instructional Product	3	2.4	1.6	.83
Instructional Process	3	1.7	1.2	.72

TABLE 3.5

INDICES OF THE SCOPE OF TRAINING OBJECTIVES
FOR PRODUCTS AND PROCESSES

Index	Maximum Index Score	Mean	S.D.	Internal Consistency (Alpha Coefficient)
Training Product*	3	.7	1.0	.70
Training Process**	3	.4	0.7	.62

* Based on the presence or absence of annual training product objectives in applications for district level in-service training, college and university course work and certification.

**Based on the presence or absence of annual training process objectives in applications for district level in-service training, college and university course work and certification.

3.3.2 Extent of Specification of Objectives

The indices in Table 3.6 show the extent that application objectives were specified for the five instructional areas. Each instructional index is based on a score of "1" for the presence of each of three sets of specifications present in an application; i.e., for product objectives, process objectives and evaluation plans. As shown in Table 3.6, project applications averaged 2.2 sets of specifications for the English language area. However, projects averaged less than one set (.7) for the affective domain. Within each instructional area, there was considerable variability across projects. These findings indicate that: (a) in their applications, projects are addressing English language skills, the major targot or purpose of ESEA Title VII, and (b) specifications are being formulated for other important instructional areas.

The overall extent of specification of instructional objectives was measured by a composite variable consisting of product objectives, process objectives, and evaluation plan specifications for five areas: English language skills, native language skills, math and science, social studies and cultural heritage and affective domain. (The affective domain was not included.) The overall instructional index was 6.9, with a possible maximum score of 12.

The indices in Table 3.7 show the extent to which application objectives were specified for staff development and training. In comparison with the instructional areas, fewer projects developed multiple specifications for training in their applications. The overall extent of specification of training objectives was measured by a composite variable consisting of product objectives, process objectives, and evaluation plan specification for four training areas: district inservice, college and university course work, training by outside consultants or organizations, and certification. The overall index for training objectives was 2.3. out of a possible score of 12.

TABLE 3.6

INDICES OF EXTENT OF SPECIFICATION INSTRUCTIONAL OBJECTIVES

(DATA SOURCE: PROJECT APPLICATIONS, N=60)

Index*	Maximum Score	Mean	S.D.	Alpha Coefficient
English Language	3	2.2	1.1	.69
Native Language	3	1.4	1.4	.90
Math and Science	3	1.6	1.3	.82
Social Studies/ Cultural Heritage	3	1.6	1.3	.79
Affective Domain	3	.7	1.2	.90
Overall Instructional Index**	12	6.9	3.9	.88

*Each instructional index consists of ratings (or "presence" or "absence" of product objectives, process objectives and evaluation plans for instructional areas found in applications.)

**The Overall Instructional Index includes all areas except the last, Affective Domain

TABLE 3.7

INDICES OF EXTENT OF SPECIFICATION TRAINING OBJECTIVES

(DATA SOURCE: PROJECT APPLICATIONS, N=60)

Index*	Maximum Score	Mean	S.D.	Alpha Coefficient
District Inservice	3	.9	1.2	.77
College & Univ.	3	.9	1.2	.80
Outside Consult. & Organization	3	.1	.6	.95
Certification	3	.3	.8	.82
Overall Training Index**	12	2.3	2.8	.84

*Each training index consists of ratings for the presence or absence of product objectives, process objectives and evaluation plans for training areas found in applications.

**The overall training index includes all four areas.

3.4 Consistency of Project Application Plans with Legislation

In order to determine the extent to which project applications were consistent with authorizing legislation, a content analysis of applications was conducted. For this analysis, the Study staff used a set of legislative features or requirements selected from the 1978 Education Amendments. In making this selection of legislative features, the following were considered:

- Centrality to legislation;
- Applicability of features to different project components; and
- Suitability for use in content analysis.

The presence of these features in an application was taken to indicate consistency with such legislation and, conversely, their absence, a lack of consistency with such legislation. A composite index of nine features or variables was developed to assess the level of consistency between legislation and applications. Table 3.8 provides the features comprising the composite legislative index. The table presents data for 1979 and 1980 projects only, since the features were not applicable for projects funded in 1976, 1977, and 1978. It should be noted that the degree to which these features appear in applications can differ with what the Study actually found as a function of mail questionnaires or interviews. For example, although only 33% of the analyzed original applications mentioned PACs, in fact, almost all of the projects actually had them in operation.

TABLE 3.8
PERCENTAGE OF BASIC PROJECT APPLICATIONS CONTAINING FEATURES
OF THE LEGISLATIVE INDEX
(DATA SOURCE: NEW APPLICATIONS (1979 and 1980), APPLICATIONS ANALYZED=34)

Legislative Feature	Percentage
Definition of eligible students in terms of the four language skills (LESA to LEP)	84%
Entry criteria and plans for use	64
Exit criteria and plans for use	72
Needs assessment for staff training	54
Parent advisory committee structure and function	33
Informing parents of children's progress	43
Informing parents of project goals	50
Employment of bilingual personnel	85
Evaluation plan	66

The projects funded in 1979 -- the first year under the 1978 Education Amendments -- had a mean of 4.7 features, indicating that the average project application addressed 52% of the nine legislative features. The applications for projects funded in 1980 had a mean of 5.5, or 61% of all features. Thus, there appeared to be improvement in the direction of project applications becoming more consistent with authorizing legislation.

An alpha reliability coefficient of .70 was obtained for this legislative index, suggesting that the index had low but adequate internal consistency. Two other features were excluded from the index because they did not improve reliability: Participation of English Proficient Students up to a maximum of 40% (23% of the applications had this feature) and Capacity Building (88% of the applications had this feature).

3.5 Presence and Role of the Parent Advisory Committee (PAC)*

Once a project is funded through a Basic grant under Title VII it must, within 60 days, establish a PAC. Its members must be selected by parents of LEP students participating in the project. A majority of the committee members must be parents of LEP students and, if the project operates within a secondary school, the PAC must include secondary school students who are LEP (Regulations, April 4, 1980). Virtually all projects (98%) reported operating with a PAC. PAC members were reported as either elected by project parents (43%) or were volunteers (31%).

Very little is explicitly stated in the regulations regarding the role of the PAC vis-a-vis the project except that, "the grantee shall consult frequently with the committee in carrying out its project." This latitude in the function and operations of the PAC was reflected in the diversity of activities which characterized existing PACs.**

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*Most of the data in this section are weighted data from the mail survey of all K-12 Basic projects.

**Examples of heavy PAC involvement may be found in Case Nos. 1 and 5. The lack of parent involvement is seen in Case No. 15. Cases mentioned in this document refer to Selected Case Histories, the companion volume to this Technical Report.

Virtually all PACs had a chairperson; about two-thirds of these chairpersons were women. Many PAC chairpersons had either attended (25%) or had completed (13%) college, and 15% had attended graduate or professional school. On the other hand, 23% had not graduated from high school.

Most PAC chairpersons were highly involved in school activities, with 72% reporting that they visited the schools five or more times throughout the school year to observe or help in the school, attend meetings, or perform other activities.

During the 1980-81 school year, 86% of the PACs had held three or more meetings by mid-winter, and virtually all PAC meetings were open to all who came. Half of the PACs reported having members with a common language, although 40% used translators to communicate among members who spoke different languages and 10% alternated freely among languages. About one-fourth of the PACs reported that members had dropped out during the year. The primary reasons for leaving the committee were work conflicts, lack of time, and moving from the area.*

Over two-thirds of the PAC chairpersons reported that their PACs were moderately or very active, and that they were involved in a wide range of project-related activities. These included: planning or evaluating the bilingual project (74%), getting community support (80%), informing parents of instructional goals (83%), serving on committees (70%), and in having members serve as volunteers (50%).

Over half (62%) of the PAC chairpersons reported they were moderately or very active in preparing the project proposal for OBEMLA. However, according to Project Directors, nearly all PACs were involved to some extent in preparing the project application. This included: discussing or suggesting ideas before the application (88%), making comments on the application (93%), suggesting changes in the application (66%), and approving the application in final draft form (90%). Fewer PACs were involved in conducting a needs assessment (52%) and fewer still in the actual writing of the project proposal (22%).*

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*For methods of involving parents, see Case No. 10.

PAC chairpersons in 75% of the projects felt their committees could help solve project problems. In this regard, 63% reported their PACs often made suggestions to solve problems and that these suggestions were often used by the projects.

3.5.1 Parent and Community Involvement Plans

PAC chairpersons in the site visit sample described their projects' plans for parent and community involvement in four general areas: PAC representation; PAC activities; PAC plans for informing parents and the community; and parent activities.

Almost half (48%) of the PAC chairpersons said that they had specific plans for which groups should be represented on the PAC. About half of these chairpersons indicated that these plans were being implemented. Forty percent of those with a plan said that such plans called for representation based on all languages and cultural groups. Approximately 20 percent said that their plans for representation were based on each project school. Almost 25 percent discussed plans which were primarily concerned with parent representation. Six percent reported that the PTA elected PAC members. The remaining PAC chairpersons discussed a variety of plans including representation of teacher aides and members from previous PACs.

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*For two contrasting views, see Case No. 6 for an example of a PAC's involvement in the project's application process and Case No. 20 illustrating parents' negative attitude about their involvement.

Two-thirds of the chairpersons reported that they had plans for PAC activities, and about half of this group reported that they were implementing those plans. About 40 percent of those with a plan discussed plans related to attendance at monthly PAC meetings. About 25 percent discussed plans for presenting multicultural events. A wide variety of other types of plans was also discussed, including plans to: generate parent involvement; orient parents to bilingual education; monitor or observe the project, classes or students; attend bilingual conferences; organize English classes for parents; approve budgets; and hire project staff.

About three-quarters of the PAC chairpersons reported plans for informing the parents and the community, and about half of this group said that they were implementing those plans. Twenty percent of those with a plan reported plans for sending notes home with the children or making home visits. The remaining chairpersons discussed a wide variety of plans including holding parent meetings, making newspaper, radio and television announcements, and word-of-mouth communications.

Eighty-five percent of the chairpersons reported plans for parent activities and about half of this group reported that they were implementing those plans. About one-third of those with a plan discussed holding open houses, cultural and social events, or pot luck dinners. Almost one-third discussed plans for having parents observe classrooms or do volunteer work in classrooms or help their children with homework. The remaining third discussed a variety of plans including holding training for parents, having parents participate in education classes, and holding parent-teacher outings.

3.5.2 The Future of Parent and Community Involvement

PAC chairpersons reported very few modifications in their plans for parent and community involvement. As Table 3.9 shows, the majority of the PAC chairpersons believe that planned activities for the PAC will be retained after Title VII funding ends.

TABLE 3.9

PERCENTAGE OF CHAIRPERSONS WHO THINK PARENT INVOLVEMENT IN PROJECT ACTIVITIES WILL BE RETAINED AFTER TITLE VII FUNDING STOPS

(DATA SOURCE: PAC CHAIRPERSON, N=60)

Project Component	Percentage Indicating Retention of Plans
Parent Involvement:	
PAC Activities	81%
PAC Representation	66
Informing Parents and Community	84
Parent Activities	72

3.6 Number and Characteristics of Students Served

The number of students per project varied a great deal. In the 1980-81 school year, the total number of students (LEP and non-LEP) reported to be served by individual projects varied from a low of 17 to a high of 5,488. Table 3.10 shows the range in the number of students served by projects.

TABLE 3.10

NUMBER OF LEP AND NON-LEP STUDENTS SERVED BY PROJECTS: 1980-81 SCHOOL YEAR

(DATA SOURCE: FUNDING APPLICATIONS, N=524)

No. of Students	No. of Projects
17 thru 100	56
101 thru 200	86
201 thru 300	102
301 thru 400	80
401 thru 500	43
501 thru 600	35
601 thru 700	21
701 thru 800	18
801 thru 900	9
901 thru 1000	17
1001 thru 1500	19
1501 thru 2000	10
2001 thru 3000	5
3001 thru 5488	3
Missing Data	20
TOTAL	524

Project directors stated in their funding applications that they were going to serve a total of 182,124 LEP children. This was based on data from 493 out of 524 funded projects. This represents approximately 83% of all students (LEP and non-LEP) which projects stated in their applications that they were going to serve. If the data from these funding applications were linearly expanded to the universe of 524 projects, it is estimated that a grand total of 193,576 LEP children potentially would be served by 1980 projects.

Classroom teacher estimates were used to confirm application information. Two independent estimates of the number of LEP children in their classes were obtained from teachers randomly sampled from the 60 projects in the site visit sample. Based on the full teacher interview (N = 277), it was projected that a total of 123,370 students were served by the 401 projects serving grades K-6. Based on the CSI (N = 283), it was projected that a total of 129,322 students were served. These two estimates are considered to be extremely close to each other, and if each of these estimates were linearly expanded to the universe of 524 grantees, then the projections from the full teacher interview would become 168,989, and the CSI projection would become 161,212. Each of these latter projections are probably underestimates since very few pre-kindergarten and no 7-12 LEP students were part of the 60-site sample.

There is a great diversity among the students served by the Title VII projects. A typical bilingual education classroom was found to be a heterogeneous group of students varying in age, language background, and English proficiency. When project directors were asked (in the mail survey of all projects) how they handled such differences, most reported using subgrouping within classes (82%), and auxiliary personnel (78%). A sizeable proportion made use of team teaching (52%), differential staffing (34%), peer tutoring (40%), non-graded classes (23%), and above (25%) or below (26%) grade level assignments; only a small portion of projects (5%) used no special treatment.

As shown on Table 3.11, 49% of the universe of K-6 project directors reported that their non-reading students were first taught to read in their dominant, i.e., native language; 28% reported teaching reading in English only; 12% reported teaching reading in both English and the students' dominant language; and 11% reported that it varied according to the needs and background of the child. (In Chapter 5, the Study further explores this issue, looking at the language used to teach LEP students to read.)

TABLE 3.11

LANGUAGE USED TO FIRST TEACH LEP STUDENTS TO READ

(DATA SOURCE: PROJECT DIRECTOR INTERVIEW, N=60)

Language	Percentage of Project Directors
Native Language	49%
English	28
Native Language and English	12
Depends on Child Needs	11
TOTAL	100%

As part of the mail survey, all project directors were asked first to classify their project according to their use of English and students' native language into one of the following types:*

Type I: "English as a second language" is taught to Limited English Proficient students; all other subjects are taught in English.

Type II: The native language is used only until the students can function in academic subjects taught in English.

Type III: The native language is taught orally, but reading and all other subjects are taught only in English.

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*A slightly modified version of the Fishman-Lovas (1970) typology modified by the addition of one more type (Type I). A more extensive discussion of this can be found in Chapter II, Study Methodology.

Type IV: Reading is taught in both languages, and other subjects are taught in English.

Type V: All subjects are taught in both languages.

As Table 3.12 shows, two-thirds of the Type I (ESL) and Type III (native language taught orally) project directors reported that their students first learned to read in English only. Over half of the Type IV directors (those directors who said that their programs taught reading in both languages but that all other subjects were taught in English) reported that their programs taught initial reading in the native language or in both languages. Sixty percent of the Type II and 72% of the Type V directors (those directors who said they taught all subjects in both languages) said their programs taught initial reading either in both languages or in the students' native language.

TABLE 3.12

RELATIONSHIP OF LANGUAGE APPROACH TYPE TO LANGUAGE USED FOR TEACHING INITIAL READING: UNIVERSE OF K-6 PROJECTS (DATA SOURCE: PROJECT DIRECTOR, N=401)

Language Used for Teaching Initial Reading	Percentage of Projects				
	I	II	III	IV	V
	%	%	%	%	%
BOTH NATIVE & ENGLISH	0	15	10	30	14
NATIVE	7	45	0	25	58
ENGLISH	66	11	65	9	9
VARIES	27	29	25	36	19

Chapter 5 discusses in further detail the use of different languages to teach reading at individual grade levels, as well as the language of instruction for other subjects. Chapter 5 also contains a discussion of administrators' and teachers' views of the modified Fishman-Lovas language-use typology with respect to project ESL or bilingual education programs.

3.6.1 Academic Achievement

Overall, the reported academic achievement of Title VII students was lower than that of non-Title VII students. While over 60% of the principals reported that their Title VII LEP students performed below national standards, only slightly over one-third of the principals placed their non-Title VII students in this range. About two-thirds (68%) of all principals attributed achievement variations among Title VII LEP students, at least in part, to variations in native or English language fluency.

Principals' descriptions of students' academic achievement varied by project type to some extent. Principals in small projects tended to rate the academic achievement of both their Title VII and non-Title VII students higher than did principals in other projects. Principals in new projects also tended to rate the academic achievement of their Title VII students higher than principals in other projects. Principals in ESL-only projects also tended to rate the academic achievement of their Title VII students higher than did principals in other types of projects. (See Chapter 6 for a full discussion of English Language Arts skills addressed in Title VII bilingual education classroom.)

3.6.2 Mobility

The principals' estimates of and comments about LEP students' mobility ran counter to popular belief. Overall, the LEP students appeared to be a relatively stable group. About half of the principals estimated that 10% or less of both their total student body and their Title VII LEP students had moved during the year. At the project level, less than half of the project directors reported such low rates of mobility; however, slightly over one-quarter reported mobility rates in excess of 30%. Some of the variation in mobility rate was related to project type. Principals in small projects reported less mobility of the total student body than did principals in medium and large projects. Principals in non-Spanish and newer projects reported higher mobility among LEP students in their Title VII program than did other principals.

More than one-third of the principals reported that mobility had created few or no problems for the school's instructional program. One-third noted that the mobility rate of LEP students had created some problems, and the remaining principals reported that it had created substantial problems. There was little variation by project characteristics in the principals' estimation of the extent to which the mobility rate of Title VII LEP children had created problems for their school's instructional program.

Most of the principals reporting problems described four types of instructional disruptions. Chief among these were disruption in the continuity of instruction for the mobile child and general problems for the school. The other two types of problems mentioned were social adjustment difficulties for the mobile child and disruption of instruction for other children in the class.

3.7 Grades Served

A facet of the diversity of Title VII projects is the different grade levels and grade level combinations served by projects. Over 70 different grade combinations (e.g., K-2, 3-7, etc.) were represented in the 1980-81 funded projects. Based on data from the site visit sample, the Title VII program was most heavily concentrated in kindergarten through third grade (Table 3.13). Each of these grades was included in at least 80% of the sampled projects. (The comparatively low percentage of projects serving grade 6 may be real or may be a function of the sampling methodology -- middle schools, many of which contain grade 6, were not included in the site visit sample.) Within each grade level, about half the principals indicated that all their schools' classes were served by Title VII.

The 277 classroom teachers who were interviewed taught in kindergarten through grade six; 67% taught in kindergarten through grade two. The data showed that 87% of these teachers taught in self-contained classrooms; while 4% of the teachers taught in a pull-out arrangement in which they provided instruction for a group of students who left their

TABLE 3.13

GRADES SERVED BY TITLE VII

(DATA SOURCE: DOCUMENT REVIEW, N=60; PRINCIPAL, N=118; CLASSROOM TEACHERS, N=277; RESOURCE TEACHERS, N=170)

Grade	Percent of Projects Serving Grade	Percent of Schools Serving Grade	Percent of Schools Serving All Classrooms Within a Grade*	Percent of Sampled Teachers Serving Grade	
				Classroom	Resource
Pre-K	11%	7%	50%	%**	%
K	81	78	50	19	1
1	85	79	47	26	5
2	84	80	45	22	5
3	80	68	44	12	9
4	70	55	46	13	6
5	69	52	44	4	1
6	59	31	57	2	1
K-6	--	--	--	<1	9
7 or 8	28	3	50	<1	--
No grade assigned	--	--	--	--	63
Number responding	60	118	118	277	170

*For example, 80 of the 118 schools (68%) serve grade three; all third grade classrooms in 35 of those 80 schools (44%) have Title VII students in them.

**No pre-K teachers were sampled.

regular class for part of the school day.* The remaining 9% of the teachers were part of a departmentalized organization; that is, they were subject matter specialists who worked with multiple groups of students.

3.8 Languages Addressed by Projects

One of the more interesting characteristics of the 1980-81 projects is that the number of languages served appears to have increased by one-third over the previous year (1979-80), and by one-half over the year before that (1978-79). Table 3.14 summarizes the number of projects addressing major languages for each of the past three years. Approximately 91 languages are represented among the 1980-81 Basic Program grantees. The exact number is difficult to compute due to the mislabeling of some languages (e.g., "Chinese" for Cantonese or Mandarin, "Native American" instead of the name of a particular language).** Spanish still predominates not only in single-language projects but also in combination with others. (See Appendix 5 for the complete listing of languages.)

Approximately nine different Native American languages and two Asian languages were added in 1980-81. However, the additional Native American languages appeared in only 11 projects while the new Asian languages appeared in 20 different projects. Given the large number of Asian language projects (about 120 projects reported Vietnamese, Laotian, Khmer, Hmong and/or Chinese as languages served), it is reasonable to conclude that refugees and other immigrant peoples from Southeast Asia have begun to have a significant impact on the composition and languages addressed by bilingual education projects.

It was also found that 76% of the projects reported serving a single language group (Table 3.15); another 17 percent reported serving two

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*Due to the nature of the sampling design, which selected classrooms and teachers associated with them, teachers primarily teaching in a pull-out arrangement may have been undersampled. This effect was reduced, however, by interviewing resource teachers and other personnel who were working with Title VII projects. See Section 4.2 for details.

**Also see Case No. 22 for the difficulties surrounding the term "Indochinese."

TABLE 3.14
NUMBER OF PROJECTS ADDRESSING INDIVIDUAL LANGUAGES
(DATA SOURCE: APPLICATIONS, N=524; DOCUMENT REVIEWS, N=60)

Languages	1978 - 1979	1979 - 1980	1980-1981
Spanish	422	395	358
Vietnamese	7	20	43
Korean	5	14	25
Laotian	-	1	27
Italian	15	26	23
Portuguese	17	23	18
Chinese (including Cantonese and Mandarin)	7	25	30
French	22	17	21
Khmer	-	-	7
Japanese	2	9	15
Navajo	17	12	12
Greek	1	13	12
Arabic	4	4	12
Haitian French (Creole)	1	6	6
Hmong	-	-	13
Pilipino	6	8	16
Russian	1	5	7
Samoan	1	2	7
Other	45	52	73
Total Unique Languages Addressed	60	68	91

TABLE 3.15
NUMBER OF LANGUAGES SERVED BY PROJECTS
(DATA SOURCE: PROJECT APPLICATIONS, N = 524)

Number of Languages	Percentage of Projects
1	76%
2	12
3	5
4	3
5	2
6	1
7-25	1
TOTAL	100%

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*From projects serving PreK only or 7-12.

or three languages; and 6 percent of projects reported serving four to six languages. Interestingly, two projects reported serving more than 20 languages each.

3.8.1 Instructional Approaches

The types of bilingual project activities and services provided to students, parents of students, and others vary greatly, depending on such factors as philosophical approach to bilingual education, number of students served, number of staff, and availability of materials. All projects provide some form of instruction in the English language. However, this varied from intensive immersion-type ESL, particularly characteristic of projects serving Asian populations or mixed-language projects, to minimal instruction in remedial English. In a few cases, there was practically no instruction in English per se, the project focusing on instruction in the student's native language. This latter situation was characteristic of a few projects serving Native American populations where native language preservation was the goal. (Some Spanish projects in the early grades also used this strategy.)

As explained previously, the project directors were asked to classify their projects according to one of five types, modified from the Fishman-Lovas typology. These types were:

Type I: "English as a second language" is taught to Limited English Proficient students; all other subjects are taught in English.

Type II: The native language is used only until the student can function in academic subjects taught in English.

Type III: The native language is taught orally, but reading and all other subjects are taught only in English.

Type IV: Reading is taught in both languages, and other subjects are taught in English.

Type V: All subjects are taught in both languages.

This overall categorization of projects according to their language of instruction was one method* used by the Study to identify different approaches to the education of LEP students.

Project directors were asked in the mail questionnaire to indicate the type of project which best described their programs and also to indicate the type of program which would best serve their school system. The modified Fishman-Lovas typology was used to categorize programs. Table 3.16 shows the results which were obtained. Overall, approaches which used both languages for all subjects (Types II and V) were reported as the most commonly used and as the preferred strategies which would best serve the project. These approaches are followed, both in use and in preference, by an approach which teaches reading in both languages but all other subjects in English (Type IV), and then by a strictly ESL approach (Type I). An approach which uses English as the general medium of instruction but which teaches the native language orally (Type III) was reported as the least used and least preferred.

TABLE 3.16

PERCENTAGE OF TYPE OF PROJECT BEING IMPLEMENTED BY PREFERRED TYPE, USING MODIFIED FISHMAN-LOVAS TYPOLOGY
(DATA SOURCE: PROJECT DIRECTOR MAIL QUESTIONNAIRE, N = 524)

		Percent of Projects Being Implemented By Type					
		I	II	III	IV	V	Total
Preferred Type	I	2.1	1.7	0.2	0.7	0.2	4.9%
	II	1.2	36.6	0.2	0.3	1.1	39.4
	III	0.2	0.0	3.0	0.2	0.0	3.4
	IV	1.3	1.3	0.3	6.0	0.8	9.7
	V	0.4	11.4	1.2	3.5	26.1	42.6
Total		5.2%	51.0%	4.9%	10.7%	28.2%	100.0%

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*Other methods included hierarchical cluster analyses and project case histories. See Section 2.10 for a fuller discussion.

Within the K-6 universe, project director reports of implementation and factors impeding or enhancing implementation varied little by the Fishman-Lovas types. Directors of Type I projects were somewhat more likely than directors of other projects to report that "procedures for selecting students," the "placement and grouping of students," and "student attendance" tended to hinder program implementation. These Type I directors were also likely to view the support they received from OBEMLA, the state, and the community as factors which hindered implementation more than directors of the other project types. They also reported a lower level of implementation of their planned community involvement activities than did the directors of other types of project.

Projects were funded under two substantially different pieces of legislation: the 1974 and 1978 Education Amendments, as well as different rules and regulations. The 1976 rules applied to projects first funded in 1976, 1977 or 1978 and some version of the 1980 rules for projects funded in 1979 or 1980; the 1980 rules underwent four revisions between March 29, 1979, and April 4, 1980.

The significance of these circumstances is that the different legislation and regulations called for different program features to be addressed in funding applications and subsequently implemented during the period under study. These changes in legislation and regulations tended to complicate the process of project implementation since a project commonly got underway under one set of regulations and then in a subsequent year was called upon to shift to another set of regulations. It goes without saying that such changes in legislation and regulation made any attempt to study project implementation more difficult. Furthermore, the Study found that substantial proportions of project and LEA personnel were unclear of the extent that new rules applied to projects funded under old rules.

For analytic purposes the sets of rules (1976, 1977, 1978, 1979 and 1980) were treated as two sets, based on the legislation. The principal differences between the 1980 rules and the 1976 rules were that the former included the following changes: participant eligibility changed from "Limited English Speaking Ability" (LESA) to "Limited English Proficiency" (LEP); 40% maximum participation of students whose native language is

English was added; capacity building stressed; three year limitation on grants; entry-exit assessments and two year individual evaluations; use of parent advisory committees, and some 25 other changes. Differences among the four versions of the 1980 rules were minimal, thus they can be analyzed as a single category.

Two-thirds of the projects reported that during the 1979 and 1980 years (1980 rules) they were not operating under the set they had begun under. Over half of the Types II, III, IV and V with K-6 projects submitted their applications under the June 11, 1976, rules, while only one-third of Type I projects had submitted their applications under these early rules. This suggests the older projects tended to emphasize approaches employing greater use of the students' native languages in instruction. However, projects are increasingly operating under the April 3, 1980, rules, as indicated below in Table 3.17.

TABLE 3.17
PROJECT TYPES COMPARED AGAINST FEDERAL RULES
UNDER WHICH SUBMITTED AND AS CURRENTLY OPERATING

	Applied Under		Currently Operating Under	
	June 11, 1976	April 3, 1980	June 11, 1976	April 3, 1980
Type I	33%	45%	14%	63%
II	57	14	28	40
III	55	25	29	36
IV	58	22	34	38
V	62	19	37	35

3.8.2 Languages Represented in the Classroom*

Seventy-three percent of the classroom teachers who were interviewed reported that only one language other than English was represented in their classrooms; 12% reported two other languages were represented; and 16% reported three or more languages in addition to English. Not surprisingly, Spanish was overwhelmingly the non-English language spoken in bilingual classrooms (88% of the classrooms). Spanish was also one of the two non-English languages represented in a majority (60%) of the trilingual classrooms. Vietnamese and some other language in addition to English was the second most common language mix in the trilingual classrooms (see Table 3.18).

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*The number of languages served by a specific project does not necessarily reflect the number of languages represented in any given classroom within that project. For example, project "A" might serve several languages, but any single teacher in project "A" might have students from only a single non-English language group in her/his classroom. Alternatively, project "B" might serve only one language, but a teacher in project "B" might have students in her classroom from several different language groups. This might happen because different languages may be served by different funding sources.

In the classrooms where three or more languages in addition to English were spoken, the mixture of languages was remarkable. For instance, one classroom had a mix of Korean, Pilipino, Polish, Albanian, and Macedonian; another included students who spoke Spanish, Laotian, Chinese, Khmer, and Farsi. Again, however, Spanish was one of the languages present in the majority of the classrooms with three or more non-English languages represented. Laotian and Vietnamese were also commonly present (Table 3.18).

Teachers were more likely to report multiple languages in classrooms in small projects and new projects than were teachers of large projects. For example, while 30 percent of the teachers in first-year non-Spanish projects worked with multiple languages in their classrooms, no teacher in a first-year project which included Spanish students reported doing so. Thirty percent of the teachers who reported multiple languages in their classrooms reported using an ESL approach exclusively, while only 7 percent of the other teachers reported using ESL exclusively.

While multiple languages were present in one-quarter of the Title VII classrooms, Title VII funds were not always directed to all language groups in those classrooms. Almost half of the teachers who reported multiple non-English languages in their self-contained classrooms were in Title VII single-language projects. This does not necessarily mean, however, that the other students were not being provided special help. Districts often receive help from many different sources at the local,

TABLE 3.18

LANGUAGES OTHER THAN ENGLISH SPOKEN IN THE CLASSROOM
(DATA SOURCE: CLASSROOM TEACHERS; N=277)

Bilingual Classrooms (73%)	
Spanish	171
Ute	4
Laotian	3
Crow	3
Khmer	3
French	1
Japanese	1
Korean	1
Miccosukee	1
Ojibwe	1
Oneida	<1*
Navajo	<1
Paiute	<1
Portuguese	1
Albanian	1
Jicarilla Apache	<1
Seminole	2
Other	1

Trilingual Classrooms (12%)	
Spanish Plus	
Portuguese	3
German	3
Tagalog	2
Pilipino	2
Arabic	1
French	1
Greek	1
Laotian	1
Korean	1
Chinese	1
Other	2
Vietnamese Plus	
Greek	2
Chinese	1
French	1
Cantonese	1
Other Languages	
Greek + Laotian	2
Arabic + Chaldean	1
Hmong + Chinese	1
Creek + Seminole	1
Italian + Japanese	1
Nigerian + Other	1
French + Pit River	1

Classrooms With Four Languages (8%)

Spanish Plus	
Polish, Thai	1
Hindi, Haitian French	1
Italian, Arabic	1
Pilipino, Japanese	1
Pilipino, Vietnamese	1
Thai, Chinese	1
Navajo, Other	1
Vietnamese, Hmong	1
Italian, Thai	1
Cantonese, Mandarin	1
French, Dutch	1
Hindi, Khmer	1

Polish, Albanian Plus	
Russian	1
Pilipino	1
Other	1

Laotian Plus	
Vietnamese, Greek	2
Vietnamese, Arabic	1
Vietnamese, Hmong	1
Hmong, Thai	1

Classrooms With Five or More Languages (6%)

Spanish, Vietnamese, Korean, Pilipino	1
Vietnamese, Laotian, Chinese, Japanese	1
Albanian, Polish, Arabic, Macedonian	1
Albanian, Polish, Korean, Other	1
Spanish, Vietnamese, Laotian, Chinese, Hindu	2
Spanish, Vietnamese, Laotian, Chinese, Korean	1
Spanish, Vietnamese, Laotian, Hmong, Khmer	1
Spanish, Vietnamese, Tagalog, Ilocano, Mandarin	1
Spanish, Vietnamese, Tagalog, Ilocano, Japanese	1
Spanish, Vietnamese, French, Portuguese, Italian	1
Spanish, Laotian, Chinese, Khmer, Farsi	1
Spanish, Tagalog, Chinese, Korean, Thai	1
Spanish, Arabic, Polish, Albanian, Macedonian	1
Vietnamese, Laotian, Korean, Hmong, Khmer	1
Korean, Pilipino, Polish, Albanian, Macedonian	1
Spanish, Vietnamese, Tagalog, Ilocano, Cantonese, Mandarin	1
Spanish, Vietnamese, Tagalog, Ilocano, Navajo, Portuguese	1
Spanish, Tagalog, Chinese, Korean, Japanese, Other	1
Spanish, Chinese, Korean, Japanese, Nigerian, Other	1

*A result of rounding error, which occurred because some projects were assigned fractional weights, so that data summed across sub-groups differ slightly from the corresponding overall group total.

state, and federal levels. (In a related matter, Chapter 5 includes a discussion of the variety of other assistance provided to Title VII students.)

3.9 Class Size and Proportion of LEP Students

Among the 242 teachers who taught in self-contained classrooms (i.e., teachers who typically worked with a single class of students), the average class size reported was 28 students. Class sizes ranged widely, from six to 75 students; however, nearly all classrooms had fewer than 40 students. All but one of the teachers who reported class sizes over 40 students were kindergarten teachers. Class size varied little by the age of the project or by language group served. Class size did tend to be smaller, on the average, in smaller projects. The 35 teachers who were in the departmentalized or pull-out situations reported working with substantially larger numbers of students, half of them with more than 40 students.

In the average classroom within the site visit sample, the teachers reported that 43 percent of the students were LEP.* Over half of the students were LEP in 10 percent of the classrooms, and 10 percent of the teachers reported that all of the students in their classes were LEP.** Kindergarten teachers reported the heaviest concentration of LEP students while second-grade teachers reported the lowest (See Table 3.19). Table 3.19 also indicates that a sizable proportion of classes consider 60% or more of their students as LEP. Half of the kindergarten classes have 60% or more LEP students, while approximately one-quarter of classes in grades one through four have 60% or more LEP students in them.

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*Title VII regulations require that 60% of the students served must have a native language other than English. This Study only focused on children classified as LEP; thus, the classrooms surveyed likely had children in them whose native language was not English but were no longer viewed as LEP.

**These data must be viewed as only indicative of the proportion of LEP students in projects as no independent verification of project staff estimates was possible. Also, they do not reflect the proportion of students in projects with a native language other than English.

The proportion of LEP students reported in classrooms varied, depending upon project characteristics. The average teacher in a Spanish-only project reported that half of his/her students were LEP, while teachers in non-Spanish projects reported serving a smaller proportion of LEP students (25%). Teachers in large (400 or more students) and older projects also reported that almost half of their students were LEP, while teachers in small (fewer than 200 students) and first-year projects reported that only about one-third of their students were LEP. Teachers who reported teaching the native language only orally reported the lowest percent LEP (13%), while teachers who reported teaching all subjects in both languages reported the highest proportion of LEP students (60%).

In interpreting these findings, one also needs to be aware that certain classroom teachers (e.g., in particular projects, grades, or instructional approaches or entry/exit criteria) may be using a local definition of LEP student or even their own perception of and experience in using that definition which differs from the standardized definition supplied them by Study field staff. As a direct consequence, then, the same student could be classified non-English proficient (NEP), LEP, or perhaps even bilingual, based on the instructional setting involved. The Study scope did not permit more than developing an estimate of the number of LEP students, and their concentration in classroom settings based on staff supplied data; no independent verification was possible. Thus the present findings can only be taken as indicative, rather than conclusive, of the actual levels and concentration of LEP students being served.

Anecdotal data in field reports and debriefings corroborate these data, suggesting that in sites serving established and larger language minorities, such as the Hispanic population, the number of LEP students within a given grade and geographic location was sufficient to

TABLE 3.19

AVERAGE CLASS SIZE AND PROPORTION OF LEP STUDENTS (DATA SOURCE: CLASSROOM TEACHERS; N = 242)

	Number of Students in Class		Number of LEP Students in Class		Proportion of LEP Students in Class*		Proportion of Classes Having 60% or More LEP Students	Proportion of Classes Having 75% or More LEP Students
Grade**	Mean***	S.D.	Mean***	S.D.	Mean***	S.D.		
K	33.3	19.1	16.7	12.0	.54	.34	.50	.33
1	26.1	5.3	12.8	9.0	.47	.30	.22	.21
2	25.6	4.2	9.4	6.3	.35	.29	.23	.10
3	27.1	4.3	10.9	9.1	.40	.33	.27	.20
4	23.1	6.2	11.5	10.7	.39	.32	.25	.21

*Derived from individual teacher responses.

**The number of Grades 5 and 6 teachers reporting information was too small to be presented in this table.

***Number of students in class: kindergarten mean is statistically different from first and second grade means.
Number/proportion LEP: kindergarten mean is statistically different from second grade mean.

permit a large concentration of LEP students within the Title VII classroom. However, in sites serving "new" language minority populations, such as those from Southeast Asia, the number of LEP students within a given grade and geographic location might often be too small to permit a large concentration of LEP students within Title VII classrooms.

3.10 Summary

In those districts where they operate, most of the ESEA Title VII Basic Grant projects serve less than half of the district schools and are a continuation or a derivation of a prior program for limited English proficient students. In 90% of the cases, there was at least one other previous or current special project for limited English proficient students operating in the school district.

During the initial years of Title VII (1969-74), an emphasis was placed in legislation, regulations and federal application review procedures on the clear articulation of long-term goals and objectives by local projects. The legislation and regulations since 1974 have not included specific requirements in these areas. However, in the great majority of cases (81%), multiyear plans are included in Title VII project proposals and 78% of the project directors indicated they had implemented these long-term plans to a "great" or "very great" extent. Thus, despite the elimination of regulations regarding explicit discussion of long-term goals and objectives in project applications, most projects have voluntarily incorporated these elements of planning into their operations, and the content of these goals and objectives have become increasingly consistent with legislative intent.

In terms of structure and operations, it was found that virtually everywhere parents have played a significant role. Ninety-eight percent (98%) of the projects had Parent Advisory Committees, with 86% having held at least three meetings by mid-school year. According to Project Directors, nearly all committees were involved to some extent in preparing the project application, and 63% of the committee chairpersons felt their committee helped solve problems during the project year. Overall, the parent committees were reported to be playing a strong and active role in the life of most projects. Most PAC Chairpersons (81%) felt these activities would continue after Title VII funding ended.

In terms of students, languages and instructional approach, the projects vary considerably. In 1980, the projects served somewhere between 160,000 and 200,000 LEP students, with the smallest project having 17 students and the largest 5,488. Teachers overall reported that an average of 43% of the students in their classrooms were LEP. Teachers who reported teaching all subjects in both languages reported the highest proportion (60%) of LEP students. LEP student concentration is reported greatest at the kindergarten level where half of the classes reported 60% or more of their students were LEP. In grades 1-4 the magnitude is reduced and only 25% of the classes are reported to have 60% or more LEP students.

A typical bilingual education classroom was found to be a heterogeneous group of students varying in age, language background and English proficiency. The schools also tended to have a relatively stable group of Title VII students with only 10 percent or less moving within the school year; students tended to be in the lower elementary grades and to be working below both national and local academic norms.

While the majority of classrooms exclusively serve Spanish-speaking students, as has been true since Title VII began, the composition of project classrooms is changing over time. The data from 1978-81 on the languages served indicate a decrease in the number of Spanish-language projects (from 422 to 358) and an increase in other languages (from 59 in 1978 to 90 in 1980), especially Asian and American Indian. Thus, while Title VII is still a predominantly Spanish program, there is some noticeable change in this regard.

The instructional approach used varied across and within projects, but all included some form of instruction in English language. English language instruction varied from the use of ESL particularly characteristic of projects serving Asian populations or multi-language projects to minimal instruction in English with most instruction in the student's native language (Native American Projects). The data suggest that in most projects (67%) both English and native language are used for instruction, in 5% only English (ESL) is used, and in 28% of the projects a bilingual approach is used.

This chapter has presented general characteristics and features associated with ESEA Title VII Basic bilingual education projects. Appendix 6: Selected Characteristics of Bilingual Education Projects, contains data tables (Tables 1-21) reflecting other characteristics of projects which were obtained through various analytic treatments including content analysis. The next chapter presents findings relating to the staffs in those local projects, as well as to technical assistance which those projects receive.

CHAPTER 4

CHARACTERISTICS OF PROJECT STAFF AND SUPPORT RECEIVED

While Chapter 3 addressed the principal characteristics and structure of the Title VII Basic program, this chapter concentrates on the characteristics of local project staff. Also included in this chapter are responses which staff members made to questions dealing with support or technical assistance from outside the district. Thus, material in this chapter provides information that is helpful for understanding the kinds of staff at work in ESEA Title VII projects, their qualifications and the support they receive.

4.1 Project Director Characteristics*

As shown in Table 4.1, all the projects in the site visit sample reported having a project director, though this person's involvement with the project varied from full-time (in 75% of the projects) to less than quarter-time (in 4% of the projects). It was found that in 73% of the projects, project directors were supported entirely with Title VII funds; in 4% of projects, directors received no Title VII support.

The typical director of a Basic project was a professional educator with strong relevant qualifications. Fifty-eight percent had two or more years of experience as a project director of a Title VII program and 25% had five or more years of experience as an administrator in a school district. Sixty-five percent had previous experience as a teacher in a bilingual classroom, with 25% having had five or more years of such experience. As shown on Table 4.2, 82% reported a master's degree as their highest degree and 9% had a doctorate.

Project director experience varied only slightly by project type. Within the K-6 universe, directors of Native American projects and new

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*See Chapter 2 for a discussion of the different samples included in this Study.

TABLE 4.1

STAFF POSITIONS
(DATA SOURCE: DOCUMENT REVIEW; N-60)

Staff	Number In Position	Percent of Projects With Position	Percent of Projects with Staff Positions														
			Percent Time					Months Per Year				Percent of Time Paid by Title VII					
			1-24	25-49	50-74	75-99	100	1-5	6-7	8-10	11-12	0	1-24	25-49	50-74	75-79	100
Project Director	1	100	4	3	10	8	75			22	78	4	1	9	3	10	73
Assistant Project Director	1	13		10			90			30	70			10			90
Resource Teachers	1	23															
	2	23															
	3	5															
	4-6	7															
	7-9	7															
	over 10	5															
	Total	70	4	8	6		82	6		69	25			1	6		93
Teacher aides	1	5															
	2	3															
	3	6															
	4-6	25															
	7-9	22															
	10-12	12															
	13-34	14															
	Total	87	2	6	10	3	79	2		86	12			1	4	2	93
Secretaries	1	70															
	2	5															
	Total	75		2	10	5	83			31	69				3	3	94
Community Liaison	1	28															
	2	8															
	3	2															
	5	2															
	11	2															
	Total	42	5		8	18	69			73	27	4			4	6	86
Other*	1	25															
	2	7															
	3	-															
	4	10															
	Total	42	20	34	38	18		4		35	61		1		6		93

*Other: Staff development, evaluation, clerk, curriculum coordinator, special bilingual support, counselor, management coordinator, graphics-video specialist, parent involvement coordinator.

projects had the least experience in their present school systems. The bilingual education teaching experience of project directors also varied only slightly by project type. Directors of Spanish-only projects were more likely to have had prior experience as directors than directors of other projects.

TABLE 4.2

HIGHEST DEGREE COMPLETED FOR PROJECT DIRECTORS

(Data Source: Project Directors; N = 524)

Bachelor's Degree	6.8%
Master's Degree	
MA	51.1
MS	12.0
MEd	15.2
MAT	3.3
Doctor's Degree	9.0
OTHER (includes AA degrees, other certificates, other specialist degrees)	2.6

4.2 Staffing Patterns

Thirteen percent of the projects in the site visit sample reported having assistant project directors, 90% of whom were full-time and completely supported with Title VII funds. Seventy percent of the assistant director positions were full-year (11- or 12-month) positions.

Projects ranged widely in the number of teacher aides and resource staff they employed. However, the aides and resource staff made up the majority of paid staff members since teachers could not be paid with Title VII funds.* Twelve percent of the projects employed no aides; 5% of projects reported having only one; while 14% of projects reported between 13-14 aides. The average project employed eight aides. In 79% of the projects, the aide positions were full-time and only in less than 10 percent of the projects were aides less than half-time. In almost all projects, aides worked the school year only and were paid exclusively by Title VII funds.

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*See Case No. 12 for a description of staff member backgrounds which includes prior teaching experience and training in education.

In addition to the 277 district-paid classroom teachers in the sample, 170 Title VII-paid resource teachers were interviewed. Resource teachers are teachers who work with students on a regular basis but who are not "classroom teachers"; that is, they are not assigned to a single classroom unit with overall responsibility for all students assigned to that unit. Very often resource teachers worked with specific students from several classrooms on an individual or group basis on a regular schedule. They may be specialists in ESL, for example, or native language reading teachers. They may also provide inservice training, either one-to-one as needed, or on a more formal scheduled group basis.

Although these resource teachers worked with Title VII students in the K-6 range, 72% were not assigned to a particular grade. Only a few were in self-contained classrooms. About 10 percent were reading specialists and another 10 percent taught ESL. The remaining 80 percent served in a variety of capacities, including: resource or specialized teachers (43%); curriculum coordinator (6%); bilingaul community liaison (4%); special education teacher (2%); teacher trainer (2%); and others such as guidance counselor, speech therapist, etc. (23%). Seventy percent of the projects visited reported employing at least one resource teacher. Fifty-one percent of all projects employed between 1-3 resource teachers, while 19% employed between four and 23 resource teachers. Seventy-nine percent of the projects reported that their resource teacher positions were full-time and 93% of the projects reported they were paid for entirely by Title VII funds.

Forty two percent of the projects visited reported having paid community liaison staff; of these projects, 68% reported having one such staff person and 32% reported having two or more. Sixty-nine percent of the projects reported that these positions were full-time and 73% reported that they were for the school year rather than the calendar year. Eighty-six percent of the projects reported that community liaison staff were supported entirely by Title VII.

It was found that 75% of projects reported secretarial positions; 83% of these projects reported that these positions were full-time and 94% reported that the positions were supported entirely with Title VII funds. Sixty-nine percent of projects reported their secretaries worked the full calendar year.

Project directors reported that a teacher/teacher aide combination was the most common classroom staffing pattern. Mid-size and large projects were somewhat more likely than small projects to use teacher/teacher aide staffing patterns. This pattern was also more common in newer projects than in older projects. Teachers in Spanish-only projects were somewhat more likely to have aides, volunteers, or student teachers than were teachers in projects serving other language groups.

Across subject areas, aides were utilized in one-third to one-half of the classrooms, and were almost always paired with teachers. The two subject areas where aides were used most often were ESL and native language reading and language arts. In these subjects, aides were utilized in half of the classrooms; that is, they were the sole instructors in approximately 10 percent of these classrooms, and worked with teachers in an additional 40 percent. The subjects where aides were used least often were social studies and science. The subject areas in which aides were most often used were the same subject areas in which pull-out programs were most common, as will be discussed more fully in Chapter 5. Teachers in older or large projects and projects serving Spanish only were more likely to report using aides in reading, ESL, and math than were teachers in new or smaller projects or projects serving other language groups.

4.3 Staff Qualifications

Virtually all of the teachers had a college degree (see Table 4.3). Of the classroom teachers, slightly more than one-quarter had a degree beyond the BA/BS level; the most common was a master's degree in education, reported by 15 percent of the classroom teachers. Over half of the resource teachers had a degree beyond the BA/BS level, most commonly a master's degree in education, science, or art. Over eleven percent of the aides also reported that they had a degree of some type (see Table 4.4), usually a baccalaureate degree (BA or BS).

Nearly 90% of the classroom teachers and 70% of the resource teachers had certification to teach in elementary school. About 40% of the classroom teachers and 30% of the resource teachers were certified to teach in bilingual education.* The major difference in type of certification between the classroom teachers and resource teachers was that twice as many resource teachers (60%) had certification as a specialist of some kind. About 5% of the aides reported that they had some type of certification, usually in elementary education.

Classroom teachers in Spanish-only projects and in large projects were more likely to be certified in bilingual education than classroom teachers in other projects. Within first-year projects, 64% of the teachers in Spanish-only projects, but only 2% of the teachers in other projects, were thus certified. Within older projects, the difference between teachers in Spanish-only projects and other projects was not as dramatic (51% and 32%). Within older projects, teachers were also more likely to be certified in bilingual education if they served in large projects.

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*It should be noted that many states do not require bilingual education certification.

TABLE 4.3

TEACHERS' HIGHEST DEGREE

(Data Source: Classroom Teachers; N = 277;
Resource Reachers; N = 170)

	Classroom Teachers	Resource Teachers
Bachelor's Degree	74%	40%
Master's Degree		
MA	7	18
MS	3	10
MEd	15	23
MAT	1	1
Doctor's Degree	1	3
Other	1	5

TABLE 4.4

TEACHER AIDES' EDUCATION LEVEL

(Data Source: Teacher Aides; N = 275)

Education Level	Percentage
Up to Grade 8	1%
Completed Grade 8	0
Beyond Grade 8, but no high school degree	4
GED	16
High School Graduate	36
Some Vocational School	2
Vocational School Graduate	1
Junior College	28
Associate's Degree	2
Bachelor's Degree	8
Master's Degree	1
Other Degree	1
Total	100.0%

Classroom teachers who reported using the native language in the teaching of all subject areas (modified Fishman-Lovas approach Types II and V) were more likely to be certified in bilingual education (46-65%) than teachers who reported that other approaches were used (2-33%). Certification in bilingual education appeared to vary for resource teachers by language within new projects. Almost half of those in Spanish-only first-year projects had such certification, as opposed to only 10% of those in other projects.

TABLE 4.5

NUMBER OF YEARS TEACHERS HAVE TAUGHT

(Data Source: Classroom Teachers; N = 277;
Resource Teachers; N = 170)

Years Taught	Percentage of Classroom Teachers	Percentage of Resource Teachers
Less than 1 year	6%	4%
1-3 years	15	14
4-6 years	27	20
7-9 years	12	18
10-12 years	8	12
More than 12 years	31	33
Total	100.0%	100.0%

As shown on Table 4.5, 31% of the classroom teachers had more than 12 years of teaching experience, and only 21% had less than four years of experience. It was also found that 32% of resource teachers had over 12 years of teaching experience, and 27% had less than 4 years of experience. Length of experience varied by project type. Classroom teachers in small projects, especially small older projects and small projects that served languages other than Spanish, reported more teaching experience than did teachers in other projects. On the other hand, resource teachers in large projects reported more experience than resource teachers in small projects. Also, resource teachers in older projects and in Spanish-only projects reported more experience.

As might be expected, aides had less experience. About 20% had less than a year of experience as an aide, and nearly half had less than four years of total experience.

Over half of the classroom teachers had been in their current teaching positions for less than four years, and over 80% for less than seven years. Length of experience in current position varied slightly by the type of language and new/old projects: teachers in new Spanish-only projects tended to have shorter tenure than teachers in other projects.

The most common type of previous experience among both the resource teachers and the classroom teachers was that of teaching in a monolingual English-speaking classroom. This experience was reported by 58% of each group of teachers (see Table 4.6). Forty-two percent of the resource teachers and 31% of the classroom teachers had previously taught in bilingual education classrooms. It was also found that 18% of the resource teachers and 6% of the classroom teachers had previously held positions as bilingual resource persons.

Across all types of projects, 66% of the classroom teachers reported some proficiency in a language other than English, most commonly Spanish (See Table 4.7). Most said they were proficient in only one additional language and only about 10% claimed some proficiency in at least two other languages.

Teachers in large projects were much more likely to report proficiency in a second language (84%) than teachers in mid-size or small projects (less than 50%). While almost three-quarters of the classroom teachers in older projects reported that they had some proficiency in a second language, slightly less than half of the teachers in new projects reported this. One hundred percent of those in new Spanish projects said

TABLE 4.6

TEACHERS' EXPERIENCE PRIOR TO TEACHING IN PRESENT GRADE AND SCHOOL

(Data Source: Teacher Interview; Classroom Teachers, N=277; Resource Teachers, N=170)

Type of Experience	Classroom Teachers		Resource Teachers	
	Percentage of Teachers	Mean Years of Experience	Percentage of Teachers	Mean Years of Experience
Teacher in a Bilingual Education Classroom	31%	4.7	42%	5.1
Teacher in a Monolingual English-Speaking Classroom	58	8.4	58	6.9
Teacher Aide in a Bilingual Education Classroom	13	3.5	9	2.5
Teacher Aide in a Monolingual English-Speaking Classroom	12	2.1	12	2.5
Bilingual Resource Teacher	6	2.8	18	2.6
ESL Teacher	10	2.9	25	3.9
Community Liaison Person	7	3.7	14	4.7

TABLE 4.7

TEACHERS' FACILITY IN LANGUAGES

(Data Source: Teachers; N = 277)

	Yes	No
Speak, read or write other than English?	65.6%	34.4%
Teach in any languages other than English?	83.4	16.6

they were proficient in a second language as opposed to only 20 percent of those in other new projects. Regardless of project age, teachers in Spanish-only projects were more likely (79%) to be proficient than teachers in other projects (45%). Teachers who reported both languages were used in all subjects (Types II and V) were more likely to report being proficient in a second language (71% and 86% respectively) than teachers who reported that other approaches were used (the percentages ranged from 27% to 63% for Types I, III and IV).

For each language other than English, the classroom teachers were asked about their proficiency in three separate skill areas: speaking, reading, and writing. Almost all of the teachers reported proficiency in all three skills in their second language. (No attempt was made to verify proficiency levels by administering any form of test.) However, beyond two languages, the proportion with proficiency in all three skills dropped markedly, and very few teachers had multiple skills in more than one language other than English. Teachers in older projects, large projects, and projects which served only Spanish students more frequently reported being proficient in all three skills in their second language than did teachers in other projects. Within new projects, teachers in Spanish-only projects were also more likely to be proficient than teachers in other projects. Teachers who reported that both languages were used to teach all subjects more frequently reported being proficient in all three skills.

Half of the classroom teachers reported that, at some time during their teaching careers, they had taught in a language other than English, and most of these teachers (more than 80%) felt very comfortable teaching in the other language. In fact, almost all of the teachers across all types of projects who taught in non-English languages felt "very comfortable" doing so.

4.4 Principals' Qualifications

Principals in schools served by Title VII had rather extensive experience (See Table 4.8). Their average number of years in the principal position at any school was 11. The principals had a substantially shorter tenure at their present schools. Two-thirds had held this position from one to five years, and only 16% had held it 11 years or more.

TABLE 4.8

PERCENT OF PRINCIPALS WITH DIFFERENT YEARS OF EXPERIENCE AND YEARS OF INVOLVEMENT WITH BILINGUAL EDUCATION

(Data Source: Principals; N = 118)

	Percent of Principals	
Number of Years	Years of Experience as Principal (any school)	Years of Involvement with Bilingual Education
1-3	20%	32%
4-6	19	30
7-9	11	14
10-12	13	12
13-15	11	7
16+	26	6

The principals' experience with bilingual education as a teacher or administrator was also substantial (Table 4-8). The average number of years of experience was seven.

Overall, the principals' experience with bilingual education varied by language served. Specifically, principals of Spanish-only projects had significantly more experience with bilingual education than did principals serving other language groups. Principals who reported that both languages were used for instruction in all subjects (Types II and V) tended to have more bilingual education experience than did principals who reported that only an ESL-approach (Type I) was used. Since the principals' experience with bilingual education appeared to correspond closely with their tenure at their current Title VII school, it is reasonable to speculate that most of their bilingual education experience had been gained during their leadership of their present school.

Forty-two percent of the principals reported that they could speak the language (other than English) which was addressed by the project in their school (See Table 4.9). And, of the group speaking their project's language(s), 83% reported using it in their work. The principals' ability to speak their project's language(s) varied by several project characteristics. Spanish-only project principals most frequently reported Spanish language facility. Principals of large and older projects also reported project language facility more often than did principals of other projects. Principals who reported that students were taught only reading in both languages (Type IV) were more likely to report that they spoke a project language (68%) than did other principals who reported a strictly ESL approach (20%).

TABLE 4.9

PRINCIPALS' LANGUAGE ABILITY

(Data Source: Principals; (N = 118)

	Yes	No
Speak any language other than English?	43%	58%
Use this language in your work?	83	17

In sum, the Title VII principals were experienced in the school leadership role and with bilingual education generally. A substantial number could speak and use the project language in their work.

4.5 Technical and Other Project Assistance

In 1974 the Congress greatly expanded the scope of the Bilingual Education Program, with one result being an emphasis on providing supportive services to local projects. In particular, the program supports a national network of centers, currently called Bilingual Education Service Centers (BESCs) and Evaluation and Dissemination Assessment Centers (EDACs). According to the regulations (April 4, 1980), BESCs "provide training and other services to programs of bilingual education...within designated areas." EDACs "assist programs of bilingual education...within designated service areas in assessing, evaluating, and disseminating bilingual education materials." Following initial project approval, OBEMLA negotiates the funding level. During and following such negotiations, the projects must revise their plans to meet the funding requirements. OBEMLA monitoring functions include both service-oriented and oversight activities.

4.5.1 Bilingual Education Service Centers (BESC)

The Study found that 77% of all Basic projects reported receiving services, materials, or training from a BESC (See Tables 4.10 and 4.11). Most of those receiving services were positive about those services. Specifically, two-thirds or more of the project directors reported that their BESC was "moderately effective" or "very effective" in the following areas: planning, operations, achievement and proficiency test selection, working with parents, and evaluation.

Within the K-6 universe, a high percentage of project directors within each language group reported using BESC services. Such use was most frequently reported by directors of Spanish-only single language projects (84%) and least frequently reported by directors of "other" language projects (73%). Overall, project directors shared similar views about BESC effectiveness. However, directors of Spanish-only projects found BESC assistance in program operations, selections of language proficiency tests, and working with parents more effective than did directors of other projects.

4.5.2 Evaluation and Dissemination Assessment Centers (EDAC)

Relatively little use appeared to be made of EDACs. Forty-eight percent of the projects had never requested assistance and 38% had

TABLE 4.10

ASSISTANCE FROM BILINGUAL EDUCATION SERVICE CENTERS (BESC)

(Data Source: Project Directors; N=524)

	Yes		No	
	%	N	%	N
Project Use of Services, Materials or Training from a BESC	77%	395	23%	117

TABLE 4.11

EFFECTIVENESS OF BESCs

(Data Source: Project Directors; N=524)

	Not Effective	Moderately Effective	Very Effective
Planning the Program	19%	41%	40%
Operating the Program	20	44	36
Evaluating the Program	26	45	29
Selecting Achievement Tests	36	41	23
Selecting the Language Proficiency Tests	28	41	32
Working with Parents	14	47	38

requested help only once or twice (see Table 4.12). However, those project directors who used EDACs frequently were very satisfied. Directors serving Spanish-only projects indicated the most satisfaction.

4.5.3 Office of Bilingual Education and Minority Languages Affairs (OBEMLA)

The response to questions regarding assistance from OBEMLA was mixed (See Table 4.13). Less than half of the projects found OBEMLA assistance useful in training and technical assistance (43%), programmatic and resource materials (33%), statistical information (38%), and preparation of project applications (50%). However, nearly two-thirds (64%) found advice and support from their OBEMLA project officer useful.

Table 4.14 shows the project directors' ratings of the usefulness of OBEMLA to the project. Within the K-6 universe, there was little variability across project type regarding usefulness of assistance received from OBEMLA. There was variability in project directors' perceptions of the usefulness of OBEMLA's assistance in preparing project applications. Directors of Spanish-only projects found such assistance less useful than did directors of projects serving other languages.

4.5.4 State Education Agencies (SEA)

The role of SEA assistance was also examined (See Tables 4.15 and 4.16). In essence, states play a variable role in the implementation of federally-funded programs depending, in part, on the state's historical or mandated activities in the program area of concern and on the role assigned to states by the federal law mandating the program. Many states have bilingual education laws and fund bilingual education programs. However, some portions of these laws and programs may not be fully congruent with ESEA Title VII law and regulations, making it difficult for local educational agencies to meet both state and federal requirements.*

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*For example, see Case No. 12 which illustrates how strict state guidelines can detract from the flexibility of the local project.

TABLE 4.12

ASSISTANCE FROM EVALUATION DISSEMINATION AND ASSESSMENT CENTER (EDAC)

(Data Source: Project Directors; N = 524)

	Never	Once or Twice	Three to Five Times	More Than Six Times
Frequency of Solicited Assistance from EDAC This Year	48%	38%	11%	3%

	To Little or no Extent	To some Extent	To a Great Extent	Don't Know
Extent that Project Used EDAC Materials and Services	45%	43%	11%	1%

	Not Satisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied
Extent of Satisfaction of Project with EDAC	1%	17%	48%	34%

TABLE 4.13

USEFULNESS OF U.S. OFFICE OF BILINGUAL EDUCATION AND MINORITY LANGUAGES AFFAIRS (OBEMLA) TO THE PROJECT

(Date Source: Project Directors; N = 524)

	Yes	No	Unused
Training and Technical Assistance	43%	18%	39%
Programmatic and Resource Materials	33	22	45
Statistical Information	38	21	41
Technical Assistance in Preparation of Project Applications	50	18	33
Advice/Support from the OBEMLA Project Officer	64	13	23

TABLE 4.14

OVERALL USEFULNESS OF OBEMLA TO THE PROJECT

(Data Source: Project Directors; N = 524)

Not at All	A Little	Some	A Great Deal
23%	22%	35%	20%

TABLE 4.15

USEFULNESS OF ASSISTANCE FROM STATE EDUCATION AGENCY (SEA)

(Data Source: Project Directors; N = 524)

	Yes	No	Unused
General Training and Technical Assistance	76%	9%	15%
Technical Assistance in Preparation of Project Application	74	10	16
Identification of Resources, Personnel, and Materials	64	13	23
Programmatic and Resource Materials	58	15	27

TABLE 4.16

OVERALL USEFULNESS OF SEA THIS YEAR

(Data Source: Project Directors; N = 524)

Not at All	A Little	Some	A Great Deal
7%	20%	36%	37%

Within ESEA Title VII, the states have a fairly limited role. Funds do not "flow through" the state; rather, projects are funded directly. States are mandated, however, to review project applications from school districts in their jurisdiction and state agencies receive grants to coordinate Title VII technical assistance.

In the present Study, projects seemed to rely relatively heavily on their respective SEAs. About three-fourths found SEA help useful in general training and technical assistance (76%) and assistance in preparing project applications (74%). A majority found that their SEA helped them in identifying personnel and resources (64%), and resource and program materials (58%). Within the K-6 universe, project director perceptions of SEA usefulness varied little by project type.*

4.6 Summary

The findings regarding staff characteristics generally show that staff involved with Title VII projects had appropriate qualifications and experience. The typical project director was a professional educator with strong relevant qualifications, and had two or more years' experience with Title VII. The directors with the most teaching experience were found in the Spanish-only projects. Most of the project directors had a master's degree.

Principals of schools served by Title VII also had substantial relevant experience. The average principal had 11 years' experience in the position and also had 7 years' experience with Title VII. Additionally, almost half the principals could speak a second language and, of these, 83% used it in their work.

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*See Case No. 13 for an example of a SEA's role in a project's development.

In accordance with the federal mandate, classroom teachers are not funded by Title VII. Title VII does, however, fund a variety of professional staff positions to assist the classroom teachers. These additional staff positions include resource teachers who work with classroom teachers and students on a regular basis although they are not assigned to a single classroom unit. They very often work with specific students from several classrooms on an individual or group basis on a regular schedule. They may be specialists in ESL, for example, or native language reading teachers. They may also be speech therapists, special educators, subject matter specialists, curriculum coordinators who provide direct assistance to teachers, or teacher trainers who provide inservice training either on a one-to-one, as-needed basis or on a more formally scheduled group basis. Other staff employed by Title VII included evaluation specialists and community liaison specialists.

The majority of classroom teachers (66%) reported that they were proficient in a language other than English. More than three-quarters of the classroom teachers in large, older projects and projects which served Spanish-only students reported such proficiency, while less than half of the teachers in new, small projects which served other languages reported language proficiency.

Forty percent of the classroom teachers and 30% of the resource teachers were certified in bilingual education. Teachers were more frequently certified in Spanish-only projects, in large projects and in projects which used the native language to teach all subjects. Although the method used to draw the sample precluded making state-by-state estimates, bilingual education certification is probably related to state practice. Bilingual education is a new area of concern in many states, and many states do not provide for such certification.

Virtually all teachers had a college degree, with one-quarter of the classroom teachers and over half the resource teachers also having a graduate degree, usually an MS in Education. Further, 90 percent of classroom teachers and 70 percent of resource teachers were certified to teach at the elementary level and 60 percent of the resource teachers also had certification as a specialist.

Aides were used in eighty-seven percent of the classrooms in the sixty sites visited. They were more frequently used in Spanish-only projects, which also tended to use volunteers and student teachers more frequently than projects which served other languages. Aides were most frequently used to assist the teachers in teaching ESL and native reading and language arts; they were seldom used to assist in the teaching of social studies and science. In sum, most staff and teachers were appropriately qualified to perform their position in terms of training, experience and language skills.

Title VII bilingual education projects generally found that BESCs were useful, but EDACs were not. OBEMLA's services tended to be viewed in mixed fashion. The role of the State Education Agency was viewed positively. In almost every area, projects found SEAs to be helpful. Since the role of states in Title VII is more limited than in many federal programs, this view of the states' role is important. Indeed, it appears that the states are playing an increasingly important and effective role with regard to technical assistance and personnel with bilingual education programs regardless of funding source.

This chapter has provided characteristics of local Title VII staff as well as a summary of the role of agencies involved in providing technical assistance to these projects. The chapter which follows focuses on project implementation. The characteristics presented in this chapter also come into play in the following chapter on project implementation.

CHAPTER 5

THE PROGRAM AS IMPLEMENTED

5.0 Scope of this Chapter

This chapter focuses on the instructional component of local program operations. In doing so, it returns to several areas discussed in Chapter 3 and treats them in greater detail. For example, Chapter 3 examined the modified Fishman-Lovas (1970) language-use typology from the project directors' perspectives. Section 5.1.1 examines it from the perspective of several different types of district administrators and compares their views with those held by the teaching staff to assess the overall extent to which personnel agree on how to implement program features. Similarly, Chapter 3 presented descriptive findings on the languages represented in the classroom. Section 5.1.1 explores this topic on a more indepth level, dealing with the use of different languages to teach reading at individual grade levels, as well as presenting findings on the language of instruction for several other subjects. Section 5.1.1 also deals with identifying groups of projects which represent distinctly different instructional approaches to the education of LEP students.

Section 5.1.2 focuses on aspects of the project management component which are related to student progress. It first examines the approaches that are used to ascertain entry into and exit from the program, and then focuses on the grades at which students usually exit from the program. It concludes with findings on the types of procedures projects use to follow the progress in all English medium classrooms of exited students. Section 5.1.3 describes the type of staff development activities which were reported to have taken place during the 1980-81 school year and earlier.

Section 5.2 deals with the many different phenomena which can influence (a) the type of program a local school system attempts to implement, and (b) the extent to which the school system is successful in starting up and maintaining that program. A selected set of such project-level factors from Chapter 3 -- project size and age, and the languages served -- has been used as the basis for sub-group analyses.

Section 5.2.1 explores many of the factors which influence local program implementation as well as some which are beyond the control of those who are responsible for implementing projects. For example, project staff cannot control a hurricane's destruction of a school building or the number of LEP students residing in a school district. On the other hand, project staff may be able to exert some influence, although perhaps not control, over other factors. This includes, for example, the number of LEP or non-LEP students in a class, or the number of hours that teachers are permitted/required to participate in inservice training. Then there are factors over which project staff have more or less direct control, e.g., the form and content of that inservice training, and the ways in which evaluation data will be used to revise the Title VII instructional program. Section 5.2.1 both reviews factors which previous studies have found to be important and discusses how those factors appear to be influencing the implementation of Title VII programs.

While Chapter 4 and Section 5.2.1 explored the reported influence of individual factors at the federal, state, and local levels on project implementation, these factors are often interrelated. Several multiple regression analyses were therefore conducted which explored the influence of these factors on project implementation and, at the same time, took their interrelationships into account. The results of this work are discussed in Section 5.2.2.

Chapter 5 concludes by discussing the important area of project plans for the continuation of the program after federal funds cease. If the LEA has not planned well, the discontinuation of funds is likely to mean a major reduction in the program's scope or its discontinuation. However, if the LEA has successfully used the grant funds as "seed money," the new program will probably continue even though federal funds have terminated. Section 5.3 summarizes the perceptions of local project respondents of the likelihood that projects or their components would be continued if Title VII funds terminate.

5.1 The Implemented Instructional Component

A major focus of the Study was on the instructional component of the Basic projects. In this section, data and findings are discussed which relate to aspects of the instructional component, including instructional approaches and the management component. A discussion on staff training and development is also included.

5.1.1 Instructional Approach

In this sub-section on instructional approach, findings are presented on externally developed instructional approaches, and the variation in language of instruction present in bilingual education classrooms. This sub-section also contains findings which relate to the use of pull-out approaches, the kinds of distinctly different instructional approaches being used to educate LEP children, and other program services available to project students.

5.1.1.1 Externally Developed Approaches

Twenty-seven percent of the project directors in K-6 projects (27%) reported that they had adopted an externally developed educational approach for instructing their students. However, the specific curricula chosen varied widely and no single approach was mentioned by more than two directors. The curricula mentioned included some developed commercially, as well as some developed by state education agencies, Title IV and VII assistance centers, and universities.* The wide diversity of adopted approaches found here is congruent with Jones' comprehensive review of educational practices in the field, prepared for Development Associates' study of the State of California's bilingual program (Jones et al., 1980, Chapter III).

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*One interesting case illustrates the difficulty in long-term planning due to a lack of a viable model -- in this instance, its development took seven years. (Case No 15.) See also Case No. 4 for a project's difficulty in using an externally developed curriculum.

5.1.1.2. Language of Instruction

A primary goal of ESEA Title VII is to help districts develop programs of bilingual education which assist children of limited English proficiency in improving their English language skills. Title VII mandates that LEP students be given instruction in English language skills and, to the extent necessary to achieve competency in English, in the native language. Depending upon the language group served, the philosophy of the local district, and a number of other factors, projects develop general guidelines for their use of the native language in instruction. Individual teachers may then modify those guidelines within certain district-oriented constraints to meet the needs of individual students.

In Chapter 3, this report pointed out that in terms of the modified Fishman-Lovas typology, the majority (67%) of K-12 project directors reported using both English and the native language for instruction with a predominant emphasis on English (types II-IV). Chapter 3 also noted that 28 percent of K-12 projects taught all subjects in both languages (Type V) and 5 percent used an ESL approach (Type I). Table 5.1 indicates that although there was some variability, a similar pattern of response to those of project directors was provided by other district staff for grades pre K-6. The data show that, with the exception of the aides, respondents reported that Type II projects predominate and that Type III are the least present.

There does appear, however, to be some difference between the perceptions of the central office administrators (project directors, superintendents, and federal programs coordinators) and most of the school level practitioner groups (resource teachers, principals, teachers, and teacher aides) with regard to the prevalence of Type I and Type II programs. Specifically, more administrators than practitioners reported

TABLE 5.1

PERCENTAGE OF PROJECTS BY TYPE OF TITLE VII PROGRAM AS REPORTED BY VARIOUS ADMINISTRATORS AND PRACTITIONERS

(DATA SOURCE: RESPONDENTS IN PROJECTS SERVING GRADES K-6; SEE EACH COLUMN BELOW)

Type of Program	SUPER-INTENDENT	FEDERAL PROGRAMS COORDINATOR	PROJECT DIRECTOR	PRINCIPALS	PAC CHAIRPERSON	TEACHERS		TEACHER AIDES
						Classroom	Resource	
Type I - ESL taught to LEPs; all other subjects taught in English	6%	12%	7%	21%	9%	13%	19%	20%
Type II - Native language used only until student can function in academic subjects taught in English	45	48	48	35	38	36	37	27
Type III - Native language taught orally; reading and all other subjects taught in English	4	5	7	4	7	10	9	11
Type IV - Reading taught in both languages; other subjects taught in English	8	6	14	17	10	13	12	5
Type V - All subjects taught in both languages	29	23	21	21	30	27	19	28
Mixed	8	7	3	3	6	1	4	9
Number Responding	60	56	60	117	59	267	163	274

that their programs were best characterized as being a Type II program. In contrast, more practitioners than administrators reported a Type I program, i.e., that ESL is being taught to LEP students and all other subjects are taught in English.

This latter difference in how practitioners and administrators perceive the instructional approach being used in their projects or district may be associated with the fact that the school level practitioners have a greater familiarity with what is happening in the classroom. Apparently, the native language is not being used as much as district-level administrators believe. Alternatively, it may be that school-level practitioners and district-level administrators tend to set different criteria for how much use of the native language must occur before stating that it is used in the instructional setting. For example, a superintendent might report that the native language is used if s/he knows that teachers use it in a supplemental fashion to aid in certain students' comprehension. On the other hand, a teacher might report its instructional use only if it is used to explain a major portion of the lesson.

While the perceptions of the superintendents, federal programs coordinators, and PAC chairpersons varied very little across project types, the perceptions of project directors, principals, teachers and aides did vary. While many of the variations were minor in nature and/or pertained to only one type of staff, there were two general trends. Staff in older projects had a somewhat greater tendency to report that Type V (all subjects in both languages) was used than did their counterparts in first year projects. For example, 31 percent of teachers in older projects compared to 17 percent in first year projects reported the use of Type V. Similarly, there appeared to be a somewhat greater tendency for staff in Spanish-only projects to report the use of Types II or V than their counterparts in projects which served other language groups. For example, 38 percent of superintendents in Spanish-only projects compared to 22 percent in other language group projects reported the use of Type V.

As part of the educational process, the projects may use the student's native language to differing extents and in different ways. The use of the native language in instruction may depend upon a number of factors, including, but not limited to: the grade, the subject being taught, the students' proficiency in English and/or the native language, and the availability of appropriate instructional staff. As Table 5.2 shows, almost half of the project directors reported that they used the students' native language to teach their projects' LEP non-readers to read. However, the language in which LEP non-readers are first taught to read varied by project language. While the native language was used exclusively in 75 percent of the Spanish-only projects, it was used in less than 20 percent of projects that served other languages. Conversely, English was used exclusively in only 2 percent of the Spanish-only projects, but was used exclusively in over 60 percent of the "other" language projects. This may be a function of the materials available to teach reading and/or teachers' ability to teach in the native language.

TABLE 5.2

PERCENTAGE OF PROJECTS BY THE LANGUAGE USED TO TEACH ALL PROJECT STUDENTS AND LEP STUDENTS TO READ
(DATA SOURCE: PROJECT DIRECTOR; N=60)

Language used to Teach Project LEP Non-Readers to Read	Language Used to Teach all Project Students to Read				Total %
	Both Native and English	Native	English	Varies	
Both Native & English	6%	0%	2%	2%	10%
Native	11	28	0	9	48
English	0	5	18	7	30
Varies	0	0	2	10	12
Total %	17	33	22	28	100%

Note: 62% of all K-6 projects use the same language to teach LEP non-readers to read as they do with all students in those projects.

As Table 5.3 shows, project director reports of the language used to teach LEP non-reading students to read are congruent with their reports of the type of language approach their projects take. For example, of those who reported using both languages for all subjects (Type V), over 80% reported using the native language exclusively with LEP non-reading students. On the other hand, of those who reported using an ESL-approach exclusively (Type I) none reported using the native language exclusively.

TABLE 5.3
PERCENTAGES OF PROJECTS BY RELATIONSHIP BETWEEN THE LANGUAGE USED TO TEACH LEP NON-READERS TO READ AND LANGUAGE APPROACH TYPE
(DATA SOURCE: PROJECT DIRECTOR; N=60)

Language Used to Teach Project LEP Non-Readers to Read	Language Approach Type*					Total %
	I	II	III	IV	V	
Both Native & English	3%	2%	0%	4%	0%	9%
Native	0	23	0	7	18	48
English	3	20	5	2	3	33
Varies	2	5	2	1	0	10
Total %	8	50	7	4	21	100%

*Language Approach:
- Type I - ESL taught to LEP students; all other subjects taught in English.
- Type II - Native language used only until student can function in academic subjects taught in English.
- Type III - Native language taught orally; reading and all other subjects taught in English.
- Type IV - Reading taught in both languages; other subjects taught in English.
- Type V - All subjects taught in both languages.

When asked if their approach to language use varied with particular grade levels and subjects, project directors tended to report that their programs used one language approach for several grade levels, and then shifted to another language approach. For example, a project might use only the native language in kindergarten and in the first grade, and then use both the native language and English in grades two and three in all subjects. Another project might always use both languages to teach math and the native language to teach reading in the first three grades, and then use both languages to teach all subjects for the next two grades. While it appeared to be a fairly common practice to use one language approach for a period of time in one or more subjects, and then to change to another language approach for at least some of the subjects, there appeared to be no clear-cut or specific grade at which such changes usually occurred. This may be because of the individualized needs which LEP students and particular language groups have.

In general, there appears to be a relatively greater tendency to use the native language at the lower grade levels and to use English more frequently at the upper grade levels. For example, between 17 and 27 percent of all Title VII projects serving grades kindergarten, one or two used the native language in teaching any of four academic subjects (math, reading, science, social studies). In contrast, for projects serving grades three or thereafter in those same subjects, the typical percentage of projects using the native language was 10%. Virtually every subject area indicated the same pattern: a declining use of the native language with increased grade level, which, in the older grades levelled off at approximately half of the kindergarten or first grade percent of use.

In a similar fashion, although less pronounced, the percent of projects reporting the use of both the native language and English in the four academic subject areas was lowest in the lowest grades, ranging from 55 to 64 percent in grades kindergarten and one, increasing over the next two grades (ranging from 58 to 71 percent), then declining slightly over the remaining grades (ranging from 52 to 67 percent). This gradual pattern may also reflect the proportionately lesser use of the native language as students remain in school and receive instruction.

Table 5.4 shows the mean percent of project grades being served within the K-6 sequence in which English or the native language was used exclusively or in which both languages were used. These percentages, computed on a project-by-project basis, were cross-tabulated by the

TABLE 5.4

PERCENT OF PROJECT GRADES (K-6) USING DIFFERENT LANGUAGE APPROACHES
(DATA SOURCE: PROJECT DIRECTORS IN K-6 PROJECTS; N=401)

Language Used by Subject Area	Language Approach Type of Project*					
	I	II	III	IV	V	Overall
Both languages						
Math	43%	65%	35%	46%	77%	63%
Reading	34	58	38	68	75	62
Science	46	59	30	38	74	58
Social Studies	54	62	53	50	77	64
Other	41	51	54	36	68	53
Average	46	57	45	50	69	58
English Only						
Math	52	15	56	38	11	22
Reading	66	20	53	21	8	21
Science	54	21	65	56	13	28
Social Studies	46	17	39	35	10	20
Other	59	38	38	58	20	36
Average	49	26	44	40	19	29
Native Language Only						
Math	**	**	**	**	**	16
Reading	0	24	9	14	18	19
Science	0	21	6	8	14	15
Social Studies	**	**	**	**	**	17
Other	**	**	**	**	**	11
Average	5	25	10	17	17	20

*Language Approach:

Type I - ESL taught to LEPs; all other subjects taught in English.
Type II - Native language used only until student can function in academic subjects taught in English.
Type III - Native language taught orally; reading and all other subjects taught in English.
Type IV - Reading taught in both languages; other subjects taught in English.
Type V - All subjects taught in both languages.

**These percentages did not differ significantly from each other; they were quite similar to the overall percentage for a given language use and subject area. Therefore, they are not included in this table.

NOTE: Column percentages added together from a particular subject area's three types of language use (Both, English Only or Native Language Only) will not total 100% since data were adjusted as needed for the number of grades per project.

project's language approach (as stated by the project director). For example, across all projects, on the average, English was used exclusively to teach math in 22 percent of the grades, while both languages were used in 63 percent of the grades. As Table 5.4 indicates, according to K-6 project directors, both languages were used for all subjects 58% of the time. However, as would be expected, this varied by the project's language approach. Project directors who stated that the projects were using both languages to teach all subjects (i.e., Types II and V) also reported using both languages across a larger percent of grades than did other project directors. (These findings also provide some evidence confirming the validity of the modified Fishman-Lovas typology used in this Study.)

5.1.1.3 Time Spent in Instruction

Classroom teachers were asked about:

(a) the length of time the average LEP student spent in group instruction in seven major subject areas,

(b) the portion of that instruction usually given in English and the portion usually given in the native language, and

(c) whether the instructor was usually a teacher or an aide.

Several teachers reported that their instructional time in various subject areas overlapped, and their reports of the amount of time spent in different instructional areas reflected this. For example, a teacher might not devote a specific instructional period to ESL but might use ESL techniques during each instructional period. Referring to Table 5.5, the amount of group instructional time for LEP students reported by the typical teacher varied widely by subject, ranging from a high of six hours per week in English reading and language arts to a low of about one hour per week in cultural enrichment. The size of the standard deviations reported in Table 5.5 also bear out this variability. In addition to these subject areas, the typical teacher reported that his/her LEP students were occupied for about three and one-third hours per week in math and two and one-half hours per week in native reading and language arts. Science and social studies each occupied one and one-quarter, and one and one-half hours per week,

TABLE 5.5

NUMBER OF MINUTES PER WEEK OF GROUP INSTRUCTION RECEIVED BY LEP STUDENTS BY SUBJECT AND LANGUAGE USED

(DATA SOURCE: CLASSROOM TEACHER: N=277)

Subject	Number * Responding	Minutes of Instruction/Week			Minutes/Week in English			Minutes/Week in Native Language			Percentage of Time Given to English	Percentage of Time Given to Native Lang.
		Median	Mean	(S.D.)	Median	Mean	(S.D.)	Median	Mean	(S.D.)		
English Reading & Language Arts	200	359.5	397.3	(220.0)	300.0	351.2	(221.8)	7.5	46.3	(72.1)	86%	14%
ESL	157	150.5	227.5	(174.0)	149.5	182.5	(136.9)	9.8	45.0	(76.0)	82	18
Native Reading & Language Arts	168	149.2	201.4	(176.8)	0.13[1]	20.4	(48.9)	134.9	181.0	(176.1)	12	88
Mathematics	220	198.8	200.1	(92.6)	142.7	147.9	(102.4)	29.9	52.1	(63.3)	71	29
Social Studies	200	89.5	101.1	(57.6)	59.7	72.0	(54.6)	12.0	29.2	(40.7)	72	28
Science	209	74.6	92.0	(69.9)	48.1	69.3	(68.3)	12.0	22.7	(31.0)	73	27
Cultural Enrichment**	88**	59.9	76.8	(85.2)	35.8	52.4	(90.6)	24.0	36.2	(94.7)	61	39

* Number of classrooms with some instruction in subject.

** Sometimes covered during instruction in other subjects.

[1] Due to 66% of these teachers reporting no minutes per week in English; excluding that group, the median is 42.2 minutes.

respectively. Overall, regardless of subject area, the median percentage use of English was 72%.

Table 5.5 also shows that in all subjects except native reading and language arts, LEP students typically were taught in English. (This agrees in general with the reports of the project directors shown in Table 5.4 and discussed earlier.) Not surprisingly, in native reading and language arts, the native language was used 88 percent of the time. The other subject area with relatively higher native language use was cultural enrichment, where the native language was used 39 percent of the time on the average. In other subject areas, the native language was only used, on the average, between 14 and 29 percent of the time.

The extensive use of the native language in the teaching of native reading and language arts did not vary by grade level. (See Table 5.6.) However, while the native language was used in English reading and language arts only 14 percent of the time across all grade levels, its usage did vary somewhat by grade level. Whereas kindergarten teachers used the native language over 23% of the time and first grade teachers over 17%, teachers in grades 2-6 generally only used the native language between 6-12% of the time.*

The use of native language also varied by project size, language, age and approach. In all subjects except for ESL, and native reading and language arts, teachers in large projects reported that they used the native language for a larger percent of time than did teachers in small projects. Teachers in Spanish-only projects reported using native language for a smaller percent of time in ESL, and for a larger percent of time in math, social studies, and science than did teachers in other projects. In all but ESL and reading, teachers who reported using typology approaches II and V (both languages) reported using the native language more (30-54%) than did teachers who said they used the other typology approaches (3-28%).

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*Case No. 8 provides an example of a strong English program in a Native American setting.

TABLE 5.6

USE OF NATIVE LANGUAGE IN THE TEACHING OF READING

(Data Source: Classroom Teacher; N=277)

	GRADE						Across All Grades
	K	1	2	3	4	5 or 6	
Percent of Reading and Language Arts Time Devoted to Native Reading and Language Arts							
No. of Teachers Responding	32	55	44	17	13	8	169
Median Percent	33.1	34.7	17.5	28.7	49.9	33.1	30.8
Mean Percent	40.1	36.2	25.7	31.7	44.8	31.0	34.1
S.D.	25.5	21.5	21.9	20.9	7.7	19.3	22.1
Percent of Time Native Language is Used in Either English or Native Reading and Language Arts*							
No. of Teachers Responding	26	49	37	14	13	6	145
Median Percent	50.0	40.0	21.7	42.9	50.0	36.9	41.7
Mean Percent	50.3	42.3	30.1	40.0	51.4	44.5	41.3
S.D.	15.1	22.2	18.7	19.8	20.5	25.5	21.0
Percent of Time Native Language is Used in English Reading and Language Arts							
No. of Teachers Responding	38	57	54	21	19	12	200
Median Percent	24.7	7.5	.6	.2	.5	.4	1.7
Mean Percent	23.3	17.2	6.1	8.1	17.3	11.6	14.1
S.D.	20.4	21.9	12.4	16.8	28.8	23.6	20.6
Percent of Time Native Language is Used in Native Reading and Language Arts							
No. of Teachers Responding	35	56	39	15	13	6	163
Median Percent	99.0	98.9	99.6	98.3	90.9	95.2	99.5
Mean Percent	90.0	90.1	92.5	92.8	85.5	88.4	90.5
S.D.	20.6	18.7	15.9	15.1	20.2	16.8	18.1

*Statistics in this section of the table were computed from teachers who taught both English and Native Reading and Language Arts. Teachers who taught only one component were excluded, thus the number of responding teachers is less than the sum of teachers supplying information on either English or Native Reading and Language Arts in the two sections which follow.

The use of native language also varied as a function of whether the instruction was by a teacher (or teachers) alone, or by an aide or aide/teacher combination. In general, as Table 5.7 indicates, the native language was used more often in mathematics and cultural enrichment when some or all of the instructors were aides.

5.1.1.4 Use of Pull-Out and Within-Class Models of Instruction*

Prior to 1960, most instruction took place within the student's assigned classroom at the elementary school level. With the emergence of compensatory education in the mid- to late sixties, the situation changed. Both specialists and aides became more common. They assisted the teacher in a variety of ways, sometimes assisting in group instruction and sometimes providing extra help to individual students. In order to provide the least disruption, when specialists worked with small groups or individual students, the instruction often took place in a separate room, that is, the students were "pulled out" of their regular classrooms for this special help. In Title VII, administrative staff also try to integrate the LEP students with their all-English speaking peers to the greatest extent possible.

Within Title VII, this challenge has been met by districts in a variety of ways. As is discussed below, students are frequently pulled out of their classroom for instruction. However, the pull-out mode of instruction is performed in many different ways. For example, at perhaps one extreme, LEP students may be pulled out for an hour a day to work on ESL with an ESL specialist. During this hour, they may be grouped with LEP students from their same class, from different classes but the same grade, or even from different grades.** Those in any given ESL group, however, are likely to have similar English language needs.

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*The pull-out data must be tempered by the fact that they are only based on a median of approximately 11 teachers per subject area, although weighted to be nationally representative. Thus certain data patterns may be only indicative, rather than conclusive, of the definite level of pull-out usage.

**Case No. 6 provides an example.

TABLE 5.7

MEAN PERCENTAGE OF INSTRUCTION TIME IN NATIVE LANGUAGE BY SUBJECT, AS A FUNCTION OF STAFFING PATTERN

(DATA SOURCE: CLASSROOM TEACHERS, N=277)

Subject	Number Respon-ing	Teachers Alone			Aides Alone			Teachers & Aides		
		Mean %	(S.D.)	(No.)	Mean %	(S.D.)	(No.)	Mean %	(S.D.)	(No.)
English Reading & Language Arts	200	12	(21.0)	(111)	6	(10.2)	(2)	17	(20.0)	(86)
ESL	157	15	(21.4)	(4)	19	(29.7)	(12)	21	(23.0)	(70)
Native Reading & Language Arts	168	89	(23.5)	(76)	81	(30.7)	(10)	89	(20.1)	(73)
Mathematics	220	22	(30.0)	(114)	29	(19.0)	(2)	38	(31.4)	(97)
Social Studies	200	24	(29.6)	(126)	16	(21.6)	(5)	30	(25.0)	(64)
Science	209	22	(27.4)	(140)	16	(25.0)	(6)	40	(24.2)	(60)
Cultural Enrichment*	89	32	(32.3)	(51)	47	(39.3)	(3)	51	(31.0)	(34)

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*Cultural Enrichment is sometimes a part of other subjects.

Another example of the range of approaches used was provided by one of the Spanish-only sites visited during this Study where the LEP students were pulled-out for special help. However, in this case the students spent a number of hours each day with the pull-out teacher. The Spanish-speaking pull-out teacher worked with her class of mixed grade students in a number of different subject areas. Those students who were able to function in the all-English speaking classroom for given subjects returned to their classrooms for that instruction. All students rejoined their all-English speaking classmates for music, art, and physical education. A separate period was not set aside for ESL instruction. Rather, the pull-out teacher practiced ESL on a one-to-one basis with her students according to their individual language abilities in each of the academic subject areas. The activities in the bilingual classroom were integrated to the extent that an observer would have had difficulty knowing whether the students were being pulled out of the bilingual classroom for selected activities in the all-English-speaking classroom or were being pulled out of the all-English-speaking classroom for special help in the bilingual classroom. The students themselves appeared to think of themselves as belonging to two classrooms and having two sets of classroom peers. Thus, the pull-out approach may be implemented in a variety of ways.

The pull-out approach* was reported by 39% of K-6 project directors to be used either exclusively or in conjunction with an in-class model. Principals reported an even more extensive use of the pull-out approach (see Table 5.8). Except for grades K-2, over half of the principals reported either sole reliance on pull-out or use of pull-out in combination with in-class. Pull-out usage tended to increase as grade level increased; i.e., the higher the elementary school grade, the proportionately greater use of the pull-out approach.

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*A pull-out situation is described in Case No. 6. See also Case No. 14.

TABLE 5.8

USE OF IN-CLASS AND PULL-OUT PROGRAMS
(DATA SOURCE: PRINCIPAL; N=118)

Grade	Number of Principals Responding	Percent with Instructional Program: In-Class Only	Pull-Out Only	In-class and Pull-Out
K	92	67%	27%	6%
1	93	59	33	8
2	94	57	35	8
3	80	46	43	11
4	65	46	44	10
5	62	33	47	20
6	36	22	63	14

Classroom teachers reported that use of the pull-out approach varied considerably by subject matter (see Table 5.9). Use was greatest in ESL, where 37 percent of the classroom teachers who reported ESL instruction used some sort of a pull-out program. In native and English reading and language arts, pull-out was used by 18 percent of the teachers, and in other subjects it was used even less. As Table 5.9 also shows, pull-out was used to a much greater extent when the classroom teacher had a bilingual education certification than when he/she did not.

The use of pull-out varied by project language group. Based on project director data, it was less likely to be used in Spanish-only projects. Data from principals and teachers corroborated this pattern. The differential use of pull-out by Spanish-only projects was most noticeable within new projects where not a single Spanish-only project director reported using any pull-out, as compared to over two-thirds of the directors in other projects who reported using pull-out. The principals in Spanish-only projects reported considerably less use of pull-out than did principals in other projects. According to the classroom teachers, this differential use of pull-out by Spanish-only and other new projects centered on ESL. Fewer than 40 percent of the teachers in new Spanish-only projects reported using pull-out for ESL while 90 percent of the teachers in the other new projects did use pull-out for that subject area.

TABLE 5.9

TYPE OF TEACHING SITUATION BY SUBJECT
(DATE SOURCE: CLASSROOM TEACHER, N=242)

SUBJECT	Use of Pull-Out						
	In Conjunction With In-Class Model				In Relation to Teachers' Bilingual Education Certification		
						Percent Pull-Out Instruction Used By Teachers Who Have	
	Number Responding	Percent Within-Class Instruction	Percent Pull-Out Instruction	Percent Both Within Class and Pull-Out Instruction	Number Responding	Bilingual Education Certification	No Bilingual Education Certification
English Reading & Language Arts	203	83%	4%	13%	192	9%	20%
ESL	169	63	32	5	158	11	63
Native Reading & Language Arts	171	82	15	3	159	4	31
Mathematics	220	89	6	5	206	2	18
Social Studies	200	93	6	2	191	2	8
Science	209	92	7	1	195	2	10
Cultural Enrichment*	89	91	6	3	80	2	11

* Sometimes a part of other subjects.

Project directors and principals who reported using approach Type I (ESL) reported using pull-out more frequently (about 80%) than did those using other approaches. Similarly, about 60 percent of the teachers who reported using an ESL approach reported using pull-out for ESL. Thirty to forty percent of the project directors, principals, and teachers who reported using Type II or V also reported using pull-out to some extent.

The extent of the time that the language of instruction was English or the native language, was examined for within-class, pull-out, or a combination of within-class or pull-out (see Table 5.10). The measure used was the mean percent of instruction that was given in the native language of the students. In a majority of the subjects (ESL, English reading and language arts, social studies, cultural enrichment), the native language was used more of the time, as compared to English, in pull-out arrangements than in the within-class situation. In the other subjects (native language reading and language arts, math, and science), the native language was used more of the time as compared to English in the within-class situation.

As discussed above, whether or not aides were used, and whether instruction occurred within the student's regular classroom or in a pull-out situation varied, depending upon a number of factors. For example, in social studies, pull-out was used with the native language 34% of the time and within-class approaches 28% of the time. As Table 5.11 shows, few teachers report that the same approach is used to teach multiple subjects. For example, while 33% of teachers reported that their students were taught English reading and language arts within their regular classrooms without the help of an aide and 23% of teachers reported that a similar approach was used to teach native reading and language arts, only 13% of teachers reported using that approach to teach ESL, and only 8% of teachers reported using that approach for the teaching of all three subjects. A few identifiable patterns have emerged, however, as Table 5.11 indicates. For example, a teacher-only, in-class approach appears to be the most common method for teaching English reading and language arts, followed closely by an in-class approach which uses an aide. Pull-out, whether with or without an aide, was used much less frequently. A somewhat

TABLE 5.10

MEAN PERCENT OF GROUP INSTRUCTION TIME GIVEN IN NATIVE LANGUAGE BY SUBJECT, AS A FUNCTION OF TEACHING SITUATION
(DATA SOURCE: CLASSROOM TEACHER, N=277)

Subject	Number Responding*	Within-Class			Pull-Out			Combination		
		Mean	(S.D.)	(N)	Mean	(S.D.)	(N)	Mean	(S.D.)	(N)
English Reading & Language Arts	199	14.1	(20.3)	(167)	29.0	(30.0)	(9)	9.3	(17.6)	(23)
ESL	158	17.2	(22.7)	(101)	21.9	(24.3)	(46)	2.0	(4.0)	(9)
Native Reading & Language Arts	168	90.1	(18.7)	(139)	93.0	(14.2)	(19)	88.4	(18.7)	(4)
Mathematics	217	29.9	(32.3)	(196)	23.8	(15.2)	(11)	21.7	(22.3)	(10)
Social Studies	198	27.9	(29.2)	(184)	34.5	(22.6)	(11)	27.1	(33.4)	(3)
Science	208	27.1	(27.8)	(192)	23.7	(25.3)	(14)	2.5	(6.0)	(2)
Cultural Enrichment**	87	39.0	(31.9)	(80)	42.0	(30.1)	(4)	24.9	(43.8)	(3)

*Number of classroom teachers reporting instruction in subject and providing within-class/pull-out information.
**Sometimes a part of other subjects.

TABLE 5.11

APPROACHES TO INSTRUCTION IN LANGUAGE ARTS
(DATA SOURCE: CLASSROOM TEACHERS, N=277)

Subject	Location of Instruction	Instructor	Number	Percent
English Reading and Language Arts	In-class	Teacher	92	33
		Aide*	76	28
		Not Stated	0	0
	Pull-out**	Teacher	22	8
		Aide	11	4
		Not Stated	1	<1
	Not stated	Teacher	2	1
		Aide	1	<1
		Not Stated	71	26
ESL	In-class	Teacher	37	13
		Aide	69	25
		Not Stated	0	0
	Pull-out	Teacher	47	17
		Aide	14	5
		Not stated	3	1
	Not Stated	Teacher	0	0
		Aide	0	0
		Not stated	108	39
Native Language Reading and Language Arts	In-class	Teacher	65	23
		Aide	76	27
		Not stated	0	0
	Pull-out	Teacher	14	5
		Aide	16	6
		Not stated	1	<1
	Not Stated	Teacher	1	<1
		Aide	<1	<1
		Not stated	104	38
	English Reading and Language Arts	ESL		
English Reading and Language Arts, ESL	In-class/teacher	In-class/teacher	27	10
		In-class/aide	12	4
		Pull-out	28	10
	In-class/aide	In-class/teacher	1	<1
		In-class/aide	43	16
		Pull-out	8	3
	Pull-out	In-class/teacher	2	1
		In-class/aide	4	1
		Pull-out	20	7
	Not Stated		131	47

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TABLE 5.11 (continued)

Subject	Location of Instruction	Instructor		Number	Percent
	English Reading and Language Arts	ESL	Native Language Reading and Language Arts		
English Reading and Language Arts, ESL, Native Language Reading and Language Arts	In-class/teacher	In-class/teacher	In-class/teacher	21	8
			In-class/aide	<1	<1
			Pull-out	5	2
		In-class/aide	In-class-teacher	10	4
			In-class/aide	1	<1
			Pull-out	1	<1
		Pull-out	In-class/teacher	6	2
			In-class/aide	3	1
			Pull-out	7	2
	In-class/aide	In-class/teacher	In-class/teacher	1	<1
			In-class/aide	0	0
			Pull-out	<1	<1
		In-class/aide	In-class/teacher	4	1
			In-class/aide	35	13
			Pull-out	0	0
		Pull-out	In-class/teacher	<1	<1
			In-class/aide	2	1
			Pull-out	4	1
	Pull-out	In-class/teacher	In-class/teacher	<1	<1
			In-class/aide	2	1
			Pull-out	0	0
		In-class/aide	In-class/teacher	1	<1
			In-class/aide	2	1
			Pull-out	0	0
		Pull-out	In-class/teacher	2	1
			In-class/aide	1	<1
			Pull-out	9	3
	Not stated			160	58

* Aide: with or without teacher also.

**Pull-out: with or without in-class instruction also.

NOTE: Numbers of teachers or percentages of less than one percent (indicated by "<1") result from the use of fractional weights being applied to very small amounts of data in a particular category of information. This symbol was retained for the sake of accuracy.

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similar pattern appears to be prevalent for the teaching of native language reading and language arts. On the other hand, in the teaching of ESL, the use of the teacher without the aide in a pull-out mode was the more common pattern.

Teachers in older projects as well as in Spanish-only projects were split fairly evenly between using an in-class approach with an aide, and an in-class approach without an aide to teach English reading and language arts. (The split was 54 percent - 46 percent in older projects and 52 percent - 48 percent for those in Spanish-only projects.) However, 83 percent of teachers in first-year projects and 72 percent of teachers in projects which served "other" languages reported that they used an in-class approach without an aide. Teachers in large projects were also more likely to report an in-class/aide approach, while teachers in small projects were more likely to report an in-class/no aide approach. Whether or not an aide was used did not appear to be substantially related to the type of language approach the teacher reported using.

On the other hand, for ESL, over half (54%) of teachers in older projects and 56 percent of Spanish-only projects reported using an aide within the classroom setting, and over three-fifths (63%) of teachers in first year projects and over half (54%) of projects which served "other" languages reported that a pull-out approach was used. Teachers who taught ESL in large projects were also more likely to report using an aide within the classroom setting while about half of the teachers in small projects were more likely to report using a pull-out approach. This may be due to relative differences in class sizes, thus the need for an aide. Teachers who reported using a strictly ESL-approach (Type I) were more likely to report using a pull-out mode for ESL instruction, while teachers who reported using both languages for all subjects (Types II and V) were more likely to report using an in-class approach, either with or without an aide.

The approach used to teach native reading and language arts did not appear to vary by project age, size, language, or language approach type.

5.1.1.5 Use of Distinctly Different Instructional Approaches

The mandate of Study Objective 1b was to determine if groups of projects could be identified which used distinctly different instructional approaches to educating LEP students. The Study's work in this area focused primarily on aspects of instruction. More specifically, it focused much of its attention on the use of English and the native language in: (a) a variety of subject areas, (b) on the use of instructional aides, and (c) on the use of the pull-out model of instruction. In addition, given Title VII emphasis on project management, the Study secondarily examined selected aspects of project management, such as provision of staff development and extent of administrative control, to ascertain if groups of projects could be identified which clearly represented different approaches to these concerns.

As the discussion of Study Objective 1b in Chapter 2 points out, several methods were used to ascertain whether or not projects used distinctly different instructional approaches. One of those methods involved the use of hierarchical cluster analyses to ascertain if the 60 projects in the K-6 site sample could be grouped together according to their responses on several different variables. The 16 variables (actually sets of variables) included in these analyses are listed in Chapter 2. Eleven of the variables used in these analyses pertain to classroom instruction. Five pertain to aspects of project management. As mentioned earlier, this work was conducted at the project level for the 60 site-visited K-6 projects because that was the level at which the most information was available and it provided a sounder basis for conducting analyses. Since these analyses used data from the representative sample of 60 K-6 projects, these findings, and their implications are also generalizable to the sub-universe of 401 K-6 projects. In addition, in an attempt to improve upon the accuracy of clustering projects into groups, three data sources were used: the Project Director Mail Survey, the Project Director Interview, and the Teacher Interview form.

The cluster analyses identified no clearly defined groups of projects. That is, certain projects did not appear to resemble other projects' pattern of data until a very advanced stage of clustering occurred. Even at that point, the projects which had formed clusters had mean scores which were very similar to other clusters' mean values. However, the analyses provided data which enabled Study staff to group projects (on the basis of the clustering patterns) into four or five groups for further exploration. These groups were then examined (via the use of ANOVA techniques) to ascertain if they were significantly different from each other on each of the variables which had been entered into the cluster analysis, and on several additional variables. Those variables and the results of ANOVA analyses are presented in Appendix 7. Because patterns of differences across the four or five groups were often difficult to interpret for each data source, these groups were recombined into two relatively more distinct groups, based on information provided by the cluster analyses. The results of the analyses based on this grouping are presented in Table 5.12.

To provide a basis for understanding the group differences presented in Table 5.12, the two groups which were formed on the basis of information in the Project Director Mail Survey (abbreviated as PDM) are identified as PDM1 and PDM2. The two groups which were formed on the basis of information in the Project Director Interview (abbreviated as PDI) are identified as PDI1 and PDI2 (Table 5.14). Finally, the two groups formed on the basis of the Teacher Interview (abbreviated as TI) are identified as TI1 and TI2 (Table 5.13). If the results of a particular ANOVA indicated that two groups were different from each other on a specific variable, then the group means on that variable are presented in Tables5.12, 5.13, and 5.14. Conversely, if the two groups were not different from each other, then the means have not been included. Information about these groups which was examined not only included variables from an individual instrument, but also from the other two instruments. Thus, for example, in addition to assessing whether or not the two PDI groups were different from each other on Project Director Interview items, the Study also assessed whether these two groups differed on Project Director Mail Survey and Teacher Interview items. Appendix 8 provides an expanded set of findings on this topic.

TABLE 5.12

MEANS FOR GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES"
(MEANS ON VARIABLES OBTAINED THROUGH THE PROJECT DIRECTOR MAIL SURVEY)

Groups / Variables	Project Director Mail (PDM) Group		Project Director Interview (PDI) Group		Teacher Interview (TI) Group	
	PDM 1	PDM 2	PDI 1	PDI 2	TI 1	TI 2
Changes in Service						
Number of LEP	2.8	1.6				
Intensity/Amount of Instruction	3.0	2.7	2.9	2.6		
Number of Subject Areas Taught	2.8	2.4				
Instructional Materials and Equipment			3.0	2.8		
Student Assessment/Diagnostic Evaluation Services			2.8	2.3		
Home/School Liaison Services						
Resource Specialists						
Aides	3.0	2.6				
Consultant Services						
Use of Both Languages for Instruction						
Math	.5	.8				
Reading						
Science						
Social Studies	.6	.8				
Inservice Percent						
Teachers			87.6	62.7	97.7	81.9
Aides						
Increase			.9	.7		
Type Change						
Quality						
More Staff						
P.D. Involvement						
Evaluation			372.6	254.3	416.1	318.7
Parents/Community						
Exit Concerns			305.8	178.5	350.7	261.3
Approach Language to Teach Initial Reading						
Both Languages					.4	.1
Dominant Language			.4	.0		
English					.0	.2
Varies					.1	.5
How Variation in Proficiency is Handled						
Subgrouping						
Auxiliary Staff						
Team Teaching					.8	.5
Differentiated St.						
Peer Tutoring					.5	.2
Below Grade Level Assignment	.5	.2				

TABLE 5.13

MEANS FOR GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES"
(MEANS ON VARIABLES OBTAINED THROUGH THE TEACHER INTERVIEW)

Groups / Variables	Teacher Interview (TI) Group		Project Director Interview (PDI) Group		Project Director Mail (PDM) Group	
	TI 1	TI 2	PDI 1	PDI 2	PDM 1	PDM 2
Percent of Time Native Language Used in Instruction						
English Reading and Language Arts						
English as a Second Language						
Native Language Reading and Language Arts			92.5	77.4		
Math	56.7	14.2				
Social Studies	53.6	15.4			17.3	33.2
Science	51.6	13.8			15.5	31.3
Use of Pull-Out						
English Reading and Language Arts						
English as a Second Language						
Native Language Reading and Language Arts						
Math						
Social Studies						
Science						
Use of Aide						
English Reading and Language Arts					.3	.6
English as a Second Language						
Native Language Reading and Language Arts						
Math	.5	.3				
Social Studies						
Science						
Percent of Time Native Language Used in Reading and Language Arts	52.1	35.6				
Percent of Reading and Language Arts Time Devoted to Native Language Reading and Language Arts	45.8	34.6				
Teacher Characteristics						
BE Certification	1.7	.4				
Bilingualism	.9	.7				
BE Experience	.6	.3				
BE Training	1.0	.7	3.5	3.8		
Implementation of Plans for Materials						
Workshops						
Satisfaction						
Frequency						
Management Effectiveness						
Factors Affecting Implementation						
District						
Community						
School						
Project						
Average						
Goal Accomplishment						
Extent of Impact						
Spoken English	3.2	2.6				
Cultural Awareness	3.3	2.9				
Academic Skills	3.3	2.8				
English Language Reading Skills						
Native Language Skills	3.3	2.7				
Self Image						
Attitude Toward School						

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TABLE 5.14

MEANS FOR GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES"
(MEANS ON VARIABLES OBTAINED THROUGH THE PROJECT DIRECTOR INTERVIEW)

Variables \ Groups	Project Director Interview (PDI) Group		Teacher Interview (TI) Group		Project Director Mail (PDM) Group	
	PDI 1	PDI 2	TI 1	TI 2	PDM 1	PDM 2
Use of English and Native Language						
Two Languages Not Used During Same Period	.3	.0	.4	.1		
First Half of Period in One Language: Second In Other						
Concurrent Use	.2	.8	.1	.4		
One Language for Teaching, Other For Preview and Review						
Language Used to Teach LEP Non-Readers to Read						
Native Language			.8	.4		
English			.0	.4		
Varies						
Both						
Areas of Project Director Control						
Placement of Criteria/Practice						
Class Scheduling					2.3	3.0
Amount of Lesson Planning Time Available						
Amount of Administrative Time Available	3.6	2.9				
Provision of Instructional Facilities	2.4	1.2				
Coordination of Instruction	3.2	2.4			2.6	3.3
Teacher Student Ratios						
Evaluation of Teachers						
Direction Supervision	3.6	2.5				
Special Disciplinary Action With Students	1.8	1.0				
Materials and Supplies						
Staff Development and Train						
Parent/Community Involvement Plans						
Student Support Services						
Information Disemination						
Office Operation	4.0	3.7				
Project Evaluation	3.7	3.1				
School Supervision						
Project Operation						
Project Administrative Staff						
Project Teaching Staff						
Project Evaluation						
Active Involvement in Program Implementation						
Superintendent's Office						
Principals			3.4	2.4		
Teachers						
Bilingual Parents/Community						
Inservice Training						
Administrator Participation						
Provision of English Language Training to Teachers	2.6	1.6				
Provision of Native Language Training to Teachers	2.4	1.7				
Provision of English Language Training to Aides						
Assistant in Meeting Certification Requirements						
Career Development Opportunities						
Prevalence of Pattern						
Solo Teacher	2.0	3.3				
Teacher/Teacher Team			2.8	1.5		
Teacher/Team Aide	4.1	2.8				
Teacher/Volunteer						
Teacher/Student Teacher						

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The two groups (termed PDI1 and PDI2) formed on the basis of information provided by project director interviews demonstrated selected differences (see Table 5.14). First, data on the two groups indicate that the native language is used in different instructional situations. Project directors in the first group (PDI1) were less likely than those in the second group to report that both English and the student's native language were used during a single instructional period. Furthermore, teachers in projects categorized into the PDI1 group reported a more extensive use of the native language for instruction in native language reading and language arts than did teachers in the second group of projects. Project directors in that group also reported a greater use of teacher aides in the classroom. Although fewer PDI1 teachers reported that they had ever had any type of bilingual education, the project directors reported a more extensive provision of training in both the native language and English, and a higher rate of teacher participation in training during the site-visit year (i.e., the 1980 school year).

Project directors in the PDI1 group reported more extensive administrative control over issues pertaining to the project and more personal involvement in project evaluation and student assessment. PDI1 directors also reported that the Title VII program was associated with more extensive changes in the intensity of instruction, instructional materials, and student assessment services. In general, PDI1 projects appear to have perhaps started the site-visit year less well prepared in at least some areas of bilingual education than the second group. However, they also appear to be served by project directors who have at least some degree of control over project activities, and who are actively involved in bringing about change.

The two groups (termed PDM1 and PDM2) formed on the basis of information provided by the project directors in the mail surveys were different from each other to only a very limited extent. For example, the PDM1 teachers reported relatively less extensive use (than did PDM2 - classified teachers) of the native language in teaching social studies and science and relatively less use of an aide in the teaching of English reading and language arts. In some ways the PDM1 projects were similar to the PDI1 projects. For example, like PDI1 project directors, PDM1 project directors also reported more extensive changes in service to the LEP population and less extensive use of two languages for instruction, at least in some areas. In general, however, the groups formed from information provided by the project directors in the mail survey do not appear to be different from each other in any meaningful and coherent manner.

The two groups (termed TI1 and TI2) formed on the basis of information provided by the teachers are quite different from each other (see Table 5.13). TI1 teachers were more likely to be certified in bilingual education, speak two languages, and have had prior experience in teaching bilingual education. They reported a much more extensive use of the native language in three different subject areas: math, social studies, and science. The TI1 project directors corroborate this from a slightly different perspective, reporting a greater use of both languages to teach initial reading in general and a greater use of the native language to teach LEP non-readers to read. They also report a more extensive use of teacher/teacher teams in general, and using team teaching and peer tutoring to handle variations in language proficiency. The TI1 teachers also reported that the native language was used for a larger percent of time in the teaching of reading and language arts.

From the management perspective, the TI1 project directors reported that they were more actively involved in project evaluation, and that a larger percent of their teachers received training during the site-visit year. Finally, the TI1 teachers reported more extensive impact in spoken English, academic skills, and native language skills.

While the two teacher groups differ in ways that pertain to ongoing activities in the classroom, the two groups formed by information provided by the project directors differ more in areas of management. That, in itself, is not very surprising, given both the different sets of questions asked of the two sets of respondents and their differing concerns. However, project directors were asked questions about instruction, and that information was included in the data set which was used in the cluster analysis, yet it did not provide a basis for differentiating projects.

Although this work has shown that there are some relatively minor differences among groups of projects, it also suggests that there are no clear-cut distinctly different instructional approaches being undertaken by subgroups of Title VII projects, at least not based on the types of information available in this Study. However, the extensive variability observed in program approach, both across and within grades, and projects, suggests that different approaches are being taken, e.g., differential use of aides and pull-out. However, the data patterns of each obtained cluster overlap to such an extent that clear cut differences do not appear across projects or classrooms.

In some ways, the projects have common instructional features. It seems entirely reasonable that certain projects appear to be similar to each other, since they generically are each attempting to serve language minority LEP students with appropriate instructional approaches and operate within a public school setting. However, it also appears that, for the most part, each project has "tailored" facets of its own instructional approach to serving LEP children to fit the reality of their own assessed needs, the entry-exit criteria under which they operate, and so forth.* Thus, the cumulative effect of considering this broad set of features, is that, overall, each project (at least those K-6 projects examined in this study) tends to be relatively distinct from other projects. This pattern applies to projects which empirically can be classified in the same cluster or "distinctly different approach."**

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*A parallel type of conclusion was reached by Treadway (1980) in recognizing that program information packages (PIPs) developed by certain sites were not "installed" in other appropriate sites as is, but instead needed to be extensively modified, or at least made functionally equivalent, so that they fit local administrative, instructional, and other realities.

**In more technical terms, this is equivalent to saying that (1) a low degree of homogeneity existed among projects classified into a particular cluster, and (2) a high degree of variation existed across cluster means. Thus, the clusters were statistically significant from each other, yet relatively unstable.

5.1.1.6 Other Services Provided to LEP Students

The federal programs coordinators in the visited K-6 projects reported that the Title VII children in their districts participated in a variety of other programs in addition to Title VII (Table 5.15). These included programs funded by federal, state, and local governments. These other programs most frequently provided both instructional services and materials. However, in about one-third of the cases they provided only instructional help, and on occasion they provided only materials. The coordinators cited Title I as the most significant source of these additional instructional services (i.e., beyond those provided by Title VII). However, a substantial portion of coordinators also indicated that state and local bilingual education programs were reaching many Title VII students.

Most of the principals also reported that their Title VII LEP students received other special instructional services in addition to those provided by Title VII. Of the responding principals, 45 percent reported that 40 to 100 percent of their Title VII LEP students received other special instructional services. Within this group, 23 percent of the principals reported that all or most Title VII students receive other services. Only 16 percent of the principals indicated that no other services were provided to their LEP population. Like the coordinators, over two-thirds of the principals identified Title I as the major source of the non-Title VII additional services.*

About a third of the principals noted that problems were created because their LEP students received multiple instructional services. Several different types of problems were mentioned, with problems in planning teaching time and the disruptions caused by children entering and leaving the classroom cited by over three-fifths of responding principals as being the chief concerns.**

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*See Case No. 8 illustrating the programmatic combinations between ESEA Title VII and IEA Title IV.

**For examples of multiple funding not presenting problems, see Cases No. 3, 4 and 21. Case No. 2 mentions difficulties in coordinating diverse services to students, where the degree of difficulty varies within the grant, which includes three school districts.

TABLE 5.15

PERCENTAGE OF FEDERAL PROGRAMS COORDINATOR REPORTING TITLE VII STUDENTS' PARTICIPATION IN OTHER PROGRAMS

(Data Source: Federal Programs Coordinators; N=60)

Program	Percentage of Coordinators Reporting Student Participation	Percentage of Coordinators Reporting Additional Services		
		Teachers/Instruction	Materials	Both
Federal Programs				
ESEA Title I (excluding migrant)	83%	31%	4%	65%
ESEA Title I Migrant	44	30	0	70
ESAA	22	63	0	37
Education for the Handicapped	64	32	0	68
Indian Education	15	20	0	80
Ethnic Heritage	15	21	14	65
Bilingual Vocational Education	15	43	23	34
Follow Through	13	33	17	50
Right to Read	18	8	49	43
Head Start	31	30	0	70
ESOL	34	35	6	59
High Intensity Language Training (HILT)	8	20	0	80
Indo-Chinese Refugee Program	26	35	11	54
Other Federal Programs (Title IV-B, Title IV-C, Other Title IV, Johnson-O'Malley, etc.)	35	14	38	48
State Programs				
State Bilingual Program	52	15	29	56
Other State Programs (compensatory/remedial/special education; school improvement program; economic impact aid, etc.)	37	27	0	73
Local Programs				
Local Bilingual Programs	40	14	0	86
Other Local Programs (gifted and talented, ESL, basic skills, etc.)	20	33	8	58

Note: Percentages total more than 100% due to more than one federal, state and/or local program being mentioned.

5.1.2 The Implemented Management Component: Aspects Related to Student Placement and Assessment

In this section findings are presented on the kinds of approaches which local projects use in determining student entry and exit, and a discussion of the expected grade of transfer from Title VII programs, and of types of follow-up services provided.

5.1.2.1 Approaches Used to Determine Entry and Exit

Published tests, followed by teacher observations, were the primary methods used by projects to determine program entry and/or exit. Over three-quarters of the K-6 project directors mentioned using either of these methods. In addition, a variety of other methods were used, including both parent surveys (mentioned by 64 percent of project directors as a technique for determining entry, and by 39 percent for exit determination purposes) and locally developed tests (mentioned by over one-third of project directors).

In their entry and exit placement procedures, projects used nearly 30 different instruments or approaches, ranging from achievement tests, such as the Metropolitan Achievement Test and Stanford Achievement Test to language assessment scales. Table 5.16 lists the tests and approaches reported by project directors, and the relative extent to which they were used for entry and/or exit purposes in assessing _any_ of the four skills reading, speaking, writing and comprehension required by law.* In some instances, certain tests were only used for one or two of the skill areas, and in others, certain tests were used to assess all four.

The most widely used tests which projects used for assessing entry into their programs were: the Language Assessment Battery, Language Assessment Scales, and Bilingual Syntax Measure, closely followed by the California Achievement Test and district-developed tests and methods. Each

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*Entry/exit considerations may vary at the local level and include factors not covered by this Study.

TABLE 5.16

TESTS AND OTHER METHODS USED TO ASSESS PROGRAM ENTRY AND EXIT
(SOURCE: PROJECT DIRECTORS: N = 60)

Name of Test/Method	Percent Used For Entry Purposes*	Percent Used For Exit Purposes*
Language Assessment Battery (LAB)	64	21
Language Assessment Scales (LAS)	64	57
Bilingual Syntax Measure (BSM)	49	23
California Achievement Test (CAT)	46	78
District-Developed Tests and Methods	44	42
Comprehensive Test of Basic Skills (CTBS)	27	44
Teacher Judgment	18	26
Categorization Based Upon Categories Specified in Lau Remedies	10	5
Home Language Survey	10	0
Stanford Achievement Test (SAT)	9	25
Wechsler Reading Abilities Test	8	0
Criterion-Referenced Tests	7	16
Language/Oral Observation Matrix (LOM/OOM)	7	12
Oral Language Proficiency Test	7	4
Basic Inventory of Native Language	6	6
Crane Language Dominance Test	6	0
Metropolitan Achievement Test (MAT)	6	5
SRA Series Test	5	2
Competency Skills Test	4	0
Far Western Written Language Assessment	3	4
JT Daley Oral Language Proficiency	3	2
Michigan Oral Language Assessment Test	3	0
Holt Basic Reading Placement Task	2	0
Oral Observation Matrix	2	0
Primary Language Dominance Survey	2	2
Carrow Auditory Assessment Test	1	0
Houghton-Mifflin Reading Program Test	0	2
Inter America Test Battery .	0	2
Systematic Approach to Reading Instruction (SARI)	0	2
Number of Responding Projects	53	42

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*Percentages are based on a test being used for assessing one or more of the four skills stated in legislation: reading, speaking, writing and comprehension. Since multiple tests were used by projects, percentages total more than 100%.

of these five types of tests/approaches was cited by between 44 percent and 64 percent of responding project directors, as being used to assess one or more of the four skills required by law.

In terms of assessing students' suitability for exiting from the program, a similar subgroup of instruments were reportedly used. Here, the California Achievement Test was used by 78 percent of responding project directors for assessing one or more of the four skills, followed by the Language Assessment Scales (57%), the Comprehensive Test of Basic Skills (44%), and district-developed tests and methods (42%). If one assumes that commercially developed criterion referenced instruments (16%) are similar to those district-developed tests and methods, then their combined percentage of use becomes large enough to make it the second most reported type of exit assessment instrument (58%).

Operationally, a number of different criteria were employed with these tests, including district norms, test levels, and percentiles. When district norms were used, projects typically used a half-year to two years below grade level as entry criteria, and attainment of grade level as the exit criterion. For those projects using percentiles, the most common practice was for students to exit when they scored above the 40th percentile on the test being used.

A large number of project directors indicated that they used commercial tests. Eighty-five percent of K-6 projects indicated that they used them for student entry and over 76 percent of projects use them for student exit. Overall, project directors were only moderately satisfied with the methods they were using to determine program entry, and were somewhat more satisfied with their approaches to determining exit. For determining entry, project directors were moderately to very satisfied with teacher observations (86%) and parent surveys (81%) and, to a lesser degree, with commercial tests (60%). Similarly, for determining exit, project directors were moderately to very satisfied with teacher observations (85%) and parent surveys (81%), and to a lesser degree, with commercial tests (63%). The latter may be explained by the fact that commercial tests do not always mesh with the curriculum being taught, since they do not always have parallel forms in the Native language or they may not be suited for certain types of LEP or NEP students. (See Appendix 6, Tables 6 and 7 for supporting statistics on the projects' relative satisfaction with these types of approaches.)

5.1.2.2 Grade of LEP Student Transfer

The classroom teachers were queried as to the grade at which they expected the majority of their LEP students to transfer to an all-English-speaking class. Except for third grade where 24% of the teachers felt that a majority of students would be ready for transfer at the end of the current year, few of the teachers at the other grade levels expected their LEP students to be ready to transfer in that school year. The majority of the K-1 teachers expected their LEP students to transfer within the next two or three years, while the majority of teachers at grades 2-6 expected their LEP students to be ready for transfer within a year or two. (See Tables 5.17 and 5.18.) As Table 5.17 shows, kindergarten teachers predicted the longest period of retention, while second grade teachers predicted the shortest.

TABLE 5.17

AVERAGE GRADE OF TRANSFER PREDICTED BY CLASSROOM TEACHERS
(DATA SOURCE: CLASSROOM TEACHERS; N=242)

Current Grade**	Average Grade of Transfer	
	Mean	S.D.
Kindergarten*	2.7	1.2
Grade 1	3.2	1.0
Grade 2*	3.7	1.2
Grade 3	5.1	1.7
Grade 4	6.4	1.4

*Only the kindergarten and second grade means are significantly different from each other.
**The number of teachers in grades five and six who reported information was too small to be included in this table.

TABLE 5.18

STUDENTS' EXPECTED GRADE OF TRANSFER AS REPORTED BY TEACHERS
(DATA SOURCE: CLASSROOM TEACHERS; N=242)

Grade of Teacher	Percentage Of Teachers Reporting Grade Of Expected Student Transfer									Total %
	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Ninth-Twelfth Grades	
K	11%	33%	45%	7%	3%	0%	0%	0%	2%	100%
1	2	15	50	26	6	0	0	1	0	100
2		8	41	36	4	8	3	0	0	100
3			24	7	40	14	2	6	7	100
4				8	18	34	4	37	0	100
5					16	47	0	37	0	100
6						0	72	16	12	100
Total N	7	30	81	41	21	14	6	10	3	213**

*Rounding errors occur because respondents are given fractional weights.

**The classroom teachers not reported on this table (N=29) stated that the specific grade to which students transferred depended on their particular levels of proficiency, and thus no single grade applied.

5.1.2.3 Types of Follow-Up Services Provided

Most project directors reported using some type of follow-up procedure. About one-fourth reported that they followed up exiting students with some type of remediation or specialized instruction, and about 10 percent reported monitoring and/or evaluating exited students' performance on a systematic schedule. However, the most common practice (reported by 40 percent of the directors) was to use whatever procedures were generally used by the individual school for following-up on any of its enrolled students in special projects.

5.1.3 The Implemented Training/Staff Development Component

Study findings on bilingual education project staff member training are discussed below. Also included is a discussion of training topics and the topic preferences of teachers.

5.1.3.1 Training Prior to 1980-81 School Year

It was found that 61 percent of the classroom and 76 percent of the resource teachers had received some bilingual education training prior to the 1980-81 school year. Eighty-three percent of these classroom teachers and 78 percent of the resource teachers with prior bilingual education training had received it in inservice training, either by itself or in combination with graduate or undergraduate coursework. In general, the resource teachers had obtained more of their training in graduate courses than had classroom teachers.

Bilingual education training received prior to the 1980-81 school year did not differ extensively by project type for resource teachers. Classroom teacher training in bilingual education prior to the 1980-81 school year did, however, vary by project characteristics. The data showed that 70 percent of the teachers in older projects had received such training, but only 35 percent of the teachers in new projects had. Over 90 percent of the teachers in new Spanish projects had received such training while less than 10 percent of those in other new projects had. Regardless of project age, 72 percent of the classroom teachers in Spanish-only projects and 74 percent of classroom teachers in large projects had received such training, while 44 percent of those in projects other than Spanish had received training. Teachers who reported using an ESL-approach exclusively (Type I) or who taught the native language only orally (Type III) reported less prior bilingual education training than did teachers reporting other types of approaches.

5.1.3.2 Training During the 1980-81 School Year

Seventy percent of the project directors reported inservice training geared to helping staff meet state certification requirements, and this did not appear to vary by project type. It was also found that 47 percent of the projects reported language training components for their staff. Spanish-only and older projects reported more English and/or native language training for their teachers. The provision of language training for aides did not appear to vary by project type.

The data showed that 54 percent, 58 percent, and 56 percent of the project directors across all types of projects said that all of their teachers, aides and special staff respectively, had participated in some type of inservice training during the current school year. Only about three percent reported that none of their teachers and seven percent reported that none of their aides received such training during the 1980-81 year. As might be expected, participation of principals and other LEA administrators in inservice training was far less extensive. Twenty-six percent of the project directors reported that these groups participated to little or no extent, and less than 18 percent indicated that they participated to a great or very great extent. This did not vary by type of project.

At the teacher level, 54 percent of the classroom teachers and 62 percent of the resource teachers reported that they had received some bilingual education training during the 1980-81 school year prior to the Study's site visits in January, February and March.

Bilingual education training for teachers during 1980-81 varied little by project type. However, while only 32 percent of the classroom teachers who reported using language approach Type I reported participating in training during the 1980-81 year, 67 percent of teachers using approach Type V reported they did. In fact, over three-quarters of the teachers who reported using the native languages for instruction (Type II or V) also reported that they were either certified in bilingual education, or at some time had had some training in it. On the other hand, only about 40 percent of the teachers who report using an ESL-only approach (Type I) reported that they were certified or had ever had any training in bilingual education. It may simply be that teachers who have had no specialized training only use an ESL-only approach. An equally plausible hypothesis would be that many school districts which plan to use an ESL-only approach in a set of classrooms do not attempt to hire teachers trained in bilingual education or provide special training for their teachers in that area.

As was true for their prior bilingual education training, the current training was overwhelmingly inservice training. It was found that 87 percent of both the classroom and resource teachers who had received such training during the current year had obtained it in inservice training. Classroom teachers reported that they had attended an average of 23 hours of bilingual education training during the school year prior to the site visit, and resource teachers reported an average of 27 hours attendance. In both groups, about half of the teachers had received 10-39 hours of training. The amount of classroom teacher training varied by project size. On the average, teachers in large projects reported over 27 hours of training, while teachers in small and mid-size projects reported 16 and 20 hours, respectively. Type I teachers reported receiving the least training (15 hours) while Type V reported the most (28 hours).

Project directors reported that a wide variety of topics were covered in their inservice training sessions. Virtually all said that these sessions had included methods for teaching content areas to LEP students. Student needs, student assessment, and materials and curriculum development were also frequently mentioned topics.* Classroom teachers most frequently

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*See Case No. 7 for an example of a project's training topics.

TABLE 5.19

RELATIONSHIP OF ATTENDANCE AT INSERVICE TRAINING TO DESIRE FOR ADDITIONAL INSERVICE TRAINING BY INSERVICE TOPIC

(Source: Classroom Teachers; N = 277)

Topic	Number Responding By Topic	Attendance: No Wants additional training: No %	Attendance: No Wants additional training: Yes %	Attendance: Yes Wants additional training: No %	Attendance: Yes Wants additional training: Yes %
Development of Goals/Objectives	271	14	8	38	40
Planning and Coordination	271	19	15	27	39
Educational Needs of Students With Different Backgrounds	266	9	27	24	40
Curriculum Development	267	13	13	33	41
Materials Development/Modifications for Limited English Proficient Students	267	16	30	13	41
Methods, Approaches, Techniques and Skills for Teaching Content Areas to Limited English Proficient Students	267	10	27	12	51
Use of Teacher Aides	271	31	25	26	18
Teaching Cultural Awareness in the Classroom	271	14	23	30	33
Understanding the Motivation and Psychology of Students	272	17	29	19	35
Methods and Techniques of Using Student Experiences in the Classroom	267	19	25	23	33
Methods and Techniques for Helping Children Become Critical Thinkers	271	14	41	12	33
Student Assessment	272	15	22	27	36
Discipline and Classroom Management	269	14	20	30	36
Counseling Students	271	35	38	11	16
Parent/Community Involvement	270	24	29	22	25
Overall					
Mean	272	17.5	25.1	22.9	34.5
S.D.		20.7	21.1	22.7	28.1

TABLE 5.20

RELATIONSHIP OF ATTENDANCE AT INSERVICE TRAINING TO DESIRE FOR ADDITIONAL INSERVICE TRAINING BY INSERVICE TOPIC

(Source: Resource Teachers; N = 177)

Topic	Number Responding By Topic	Attendance: No		Attendance: Yes	
		Wants additional training			
		No %	Yes %	No %	Yes %
Development of Goals/Objectives	166	16	9	43	32
Planning and Coordination	166	13	20	30	37
Educational Needs of Students With Different Backgrounds	165	11	15	29	45
Curriculum Development	165	19	13	22	46
Materials Development/Modifications for Limited English Proficient Students	166	11	24	19	46
Methods, Approaches, Techniques and Skills for Teaching Content Areas to Limited English Proficient Students	168	13	21	20	46
Use of Teacher Aides	164	39	23	20	18
Teaching Cultural Awareness in the Classroom	165	21	18	29	32
Understanding the Motivation and Psychology of Students	163	16	33	18	33
Methods and Techniques of Using Student Experiences in the Classroom	165	16	24	30	30
Methods and Techniques for Helping Children Become Critical Thinkers	164	15	37	12	36
Student Assessment	163	17	10	33	40
Discipline and Classroom Management	166	21	11	35	33
Counseling Students	162	23	41	12	24
Parent/Community Involvement	166	17	22	21	40
Overall Mean S.D.	168	17.6 22.8	21.6 21.1	24.6 21.8	36.1 27.5

reported attending sessions that covered goals development and curriculum development, each of which was mentioned by approximately three-quarters of the teachers. For resource teachers, the most frequently cited topics were: goals development, student assessment, and dealing with the different educational needs of students from different backgrounds. The least frequently cited topic for both groups of teachers was that of counseling students.

Teachers were asked about the topics on which more training would be desirable. As the data in Tables 5.19 and 5.20 indicate, at least half of the teachers who had received training in a particular topic wanted more training in the same topic which suggests the training provided is appropriate but needs to be continued. Figure 5.1 plots the major training topics covered against the extent to which more training is desired in each area for classroom teachers. The topics above the line are those where more teachers expressed a desire for training than said the topic had been covered in their workshops. The figure indicates that teachers wanted more training about: teaching critical thinking; teaching LEP students; LEP materials; and student motivation.

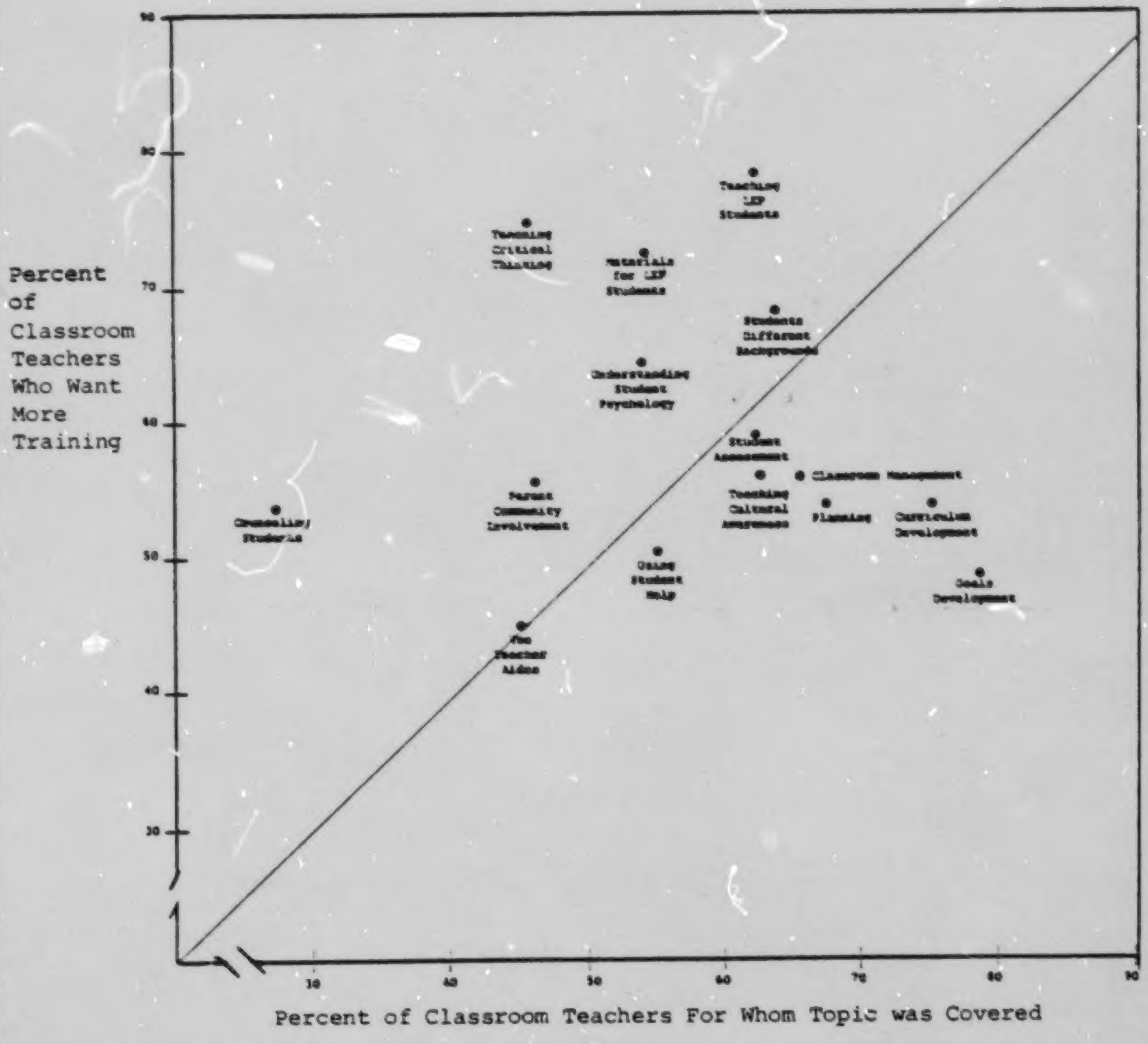
It was found that 87 percent and 88 percent of the classroom and the resource teachers, respectively, were either moderately or very satisfied with the quality of their training. Satisfaction levels varied little by project type.

5.2 The Process of Implementation

This section deals with factors which have a direct bearing on the implementation of Title VII projects. These factors operate at the local, as well as at the state or federal levels. The section below focuses on local factors which the literature suggest influence project implementation. It is followed by a section which analyzes a variety of factors including other local factors as well as those at the state and federal level.

FIGURE 5.1

TRAINING TOPICS COVERED AND TOPICS WHERE MORE TRAINING IS DESIRED BY CLASSROOM TEACHERS
(Source: Classroom Teachers; N=277)



5.2.1 Local Factors

As pointed out in the introduction to this chapter, many factors that influence project implementation are clearly beyond the control of those responsible for it. On the other hand, there are factors over which project staff may be able to exert some influence, although they may not be able to control them. Then, too, there are factors over which project staff have more or less direct control. This section examines some of those factors over which project staff have control, or are able to exert at least minimal influence. This was done to assess whether certain methods of exerting influence and/or control are more likely than others to result in the successful implementation* of ESEA Title VII projects. The section first discusses what district and project staff reported that they did to assist in project implementation. It then assesses their impact on the implementation process, by examining empirically the relationship of potentially influential factors with various measures of implementation. Relevant findings and theoretical points from the implementation literature also are presented here to place the current Study findings in context.

Several studies have recently reviewed implementation processes in education and come to quite similar conclusions (see References section): while no single procedure or set of procedures will ensure successful implementation, certain types of activities are necessary if a project is to be successful in its implementation, and other types of activities will certainly ensure a project's failure. The studies suggest that if implementation is to succeed, projects need to develop implementation strategies in five areas: broad-based participation; pre- and inservice training; program development/modification; feedback mechanisms; and resource support.** Each is discussed below.

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*This term necessarily includes: effective operation of local projects, institutionalization, and transfer of students into all English-medium classes as suitable.

**The following implementation studies are cited in the discussion below: Berman, 1980; Berman & McLaughlin, 1978; Fullan & Pomfret, 1977; Peterson, 1977; Proper & St. Pierre, 1979; and Rayder & Barnes, 1977.

5.2.1.1 Broad-Based Participation

Broad-based participation and participation by both district and school level personnel are extremely important to project implementation. For example, Peterson (1978) discusses the need for the "early involvement of administrative and instructional decision makers," and Rayder and Barnes (1977) report that they rarely found a project rated as successfully implemented if administrative support was hostile or indifferent.

Fifty-six percent of the current Study's K-6 project directors reported that the assistance and cooperation of school administrative staff helped project operations to a great or very great extent. Sixty-six percent of the project directors and sixty-four percent of the principals reported that cooperation between project and non-project teachers helped on-going operations. Federal program coordinators, project directors and principals in K-6 projects were also less impressed with the on-going involvement of school level non-project staff. About three-quarters of the federal program coordinators reported that the project schools had helped to a great extent to get the projects started. Although two-thirds believed that coordination between school level project and non-project staff had helped to a great extent to get the project going, slightly less than a third believed that non-project staff in the schools were very involved on an on-going basis with the projects. Only half of the project directors reported that principals were involved on an on-going basis to a great extent, and only 20 percent reported a great extent of on-going involvement of non-project teachers.

About three-quarters of the principals reported that informal teacher communication had been used to a great extent to achieve coordination between project and non-project staff in their schools. About half said that overall school curriculum planning had been used to a great extent to achieve this purpose, and a slightly smaller group (43%) reported that formal joint planning had been used to a great extent.*

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*That the lack of coordination of instruction across programs is a factor hindering implementation may be seen in Case No. 5.

Project directors, principals, and classroom teachers shared similar views about the extent to which the integration of project and non-project students for non-academic activities helped. About half of each group thought it did, and about half thought it had no effect.

Fifty-three percent of the federal program coordinators felt that the local community had helped only to some extent to get the project started or keep it going. Forty-eight percent of the principals and 42 percent of the teachers felt that community support had mostly helped local project operations. Forty-four percent of the principals and forty-nine percent of the teachers felt that parents had mostly helped in their project activities. The community at large was apparently often not a critical factor in program start-up or operations, according to both formal interviews and the case histories. However, both the data and case histories indicate that parents, PAC members, and other individuals within the community were often intensely involved on an on-going basis and their contributions were important.*

5.2.1.2 Pre-Service and Inservice Training

As noted earlier, literature on implementation also suggests that projects need to develop implementation strategies for inservice training. Projects will not be effectively implemented if training is conducted only before the beginning of a project or at some other single point in time. Ongoing inservice training is needed for at least three different reasons.

First, most programs are still in their initial development phase when they are first implemented; thus, all information about them cannot be transmitted at start-up. Second, even in the most stable systems, staff turnover occurs and new staff need to be trained. Third, staff have emerging needs which need to be addressed. Berman (1980) suggests that if one is using programmed implementation strategies, teachers should be trained in prespecified standard operating procedures. Many authors (e.g., Proper and St. Pierre, 1979) point out that while some inservice activities can and should be preplanned, much of the inservice training activity should be designed to meet the emerging needs of the project's staff. They suggest that these sessions should focus on both the philosophy of the program and on practical classroom issues and should be in the language of the participants. Also, training activities should not be restricted to teaching personnel.

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*For an example of how negative community attitudes may be a factor hindering implementation, see Case No. 7. For positive examples, see Case Nos. 12 and 22.

ESEA Title VII regulations recognize the need for staff training through the delineation of a staff development component.* The types of training being implemented in Title VII programs and the specific topics being covered in inservice training sessions were discussed earlier in this chapter. There it was reported that over half of the project directors reported that all of their teachers, aides, and special staff had received inservice training during the 1980-81 school year. About half of the classroom teachers and just over 60% of the resource teachers reported they had received some bilingual education training during the same year. Participation of principals and LEA administrators in inservice training was far less extensive. About three-quarters of the principals and teachers reported that pre- and inservice training activities had helped program operations.

5.2.1.3 Program Development/Modification

The literature suggests that program development/modification is another area where implementation strategies are important. Specifically, it is suggested that projects need to develop strategies both for program modification and for the phased implementation of the program. As pointed out in Chapter 3, project applications and other early documentation are often vague. Fullan and Pomfret (1977) point to the need to have plans at the beginning of the project to make such vague ideas more explicit. In those cases where early project documents are detailed, they often need to be revised when they come in contact with the real world. Berman (1980) argues that programmed implementation strategies need detailed goals and objectives (whether preplanned or planned during implementation) while adaptive strategies work best with loosely defined ones. Peterson (1977) speaks of focusing on the "spirit" of the innovation rather than on the "replication of its form, structure, or mechanics." Berman and McLaughlin (1978) point to the need for mutual adaptation, that is, not only must the system change to meet the requirements of the project, but the project must also change and adapt to the emerging needs and constraints of the system.

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*Section 723 of the regulations states that ". . . the Commissioner shall, through grants to, and contracts with, eligible applicants . . . provide for . . . training . . . designed (I) to prepare personnel to participate in, or for personnel participating in, the conduct of programs of bilingual education . . ."

ESEA Title VII recognizes this need for project modification with its formal process for planning revisions. Programs may have to be changed considerably in the initial planning phases as actual funding levels may be quite different from the levels requested. Once these initial changes are made, however, project directors say that they make few changes. This lack of program change may be related to the emphasis of Title VII projects. Title VII projects appear to emphasize the procurement aspect of service delivery rather than the content. That is, projects are concerned with providing a certain number of aides or providing a certain number of hours of inservice training. Unless the target population changes dramatically (which it can in Title VII), major modifications are unlikely to be required at this level. Program modifications may therefore be more likely to be needed at the classroom level, e.g., in terms of the type and content of instruction. The data showed, however, that teachers reported few modifications in their instructional plans. In general, teachers did not think in terms of plans being made and then modified, but rather in terms of plans evolving. Specifically, 23 percent of teachers reported making modifications in their general instructional approach; 23 percent reported making modifications in bilingual education materials; 22 percent reported making modifications in bilingual education activities; and 21 percent reported making modifications in scheduling bilingual education activities. The modifications were predominantly related to students' grade and ability levels.

5.2.1.4 Feedback Mechanisms

Implementation literature also focuses on feedback mechanisms. Berman (1980) suggests that persons using programmed implementation strategies use evaluation to assess the fidelity of program implementation, whereas those using the adaptive approach use evaluation to adapt implementation strategies to meet emerging needs. Other authors (e.g., Proper and St. Pierre, 1979) have pointed to the need for a variety of feedback mechanisms, including formative evaluation, to be developed and used to assist the implementers in making mid-course corrections. Such feedback mechanisms may include: both formal and informal meetings among instructional and administrative staff, inservice training, student testing, implementation checklists, classroom observations, etc.

Respondents from Title VII projects reported that they are evaluating their projects in a variety of ways. Well over three-fourths of the coordinators reported that the project had been adapted to meet specific community and student needs. Since the project directors report few modifications to project plans, one might hypothesize that this adaptation to meet community and student needs is accomplished within the Title VII-approved plans rather than through changes in the plans themselves. For example, a project might employ the number of aides stipulated in the plan, but might deploy them somewhat differently depending upon changing student needs. Eighty percent of the project directors reported that they had conducted needs assessments during the 1980-81 school year, most frequently in the areas of staff development and student instructional needs. At least half reported that they had conducted needs assessments of materials and parent/community involvement.* In addition, almost 80 percent of the classroom teachers reported that the projects' internal evaluations and monitoring efforts had generally been "moderately" or "very" effective in assisting the project meets its objectives.

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*Case No. 19 reports the parents' involvement in program evaluation.

5.2.1.5 Resource Support

According to implementation studies, adequate resource support is also necessary. In general, the monetary size of a project does not appear to be related to whether or not the project is successful in implementing its program. For example, Berman and McLaughlin found that more expensive projects were no more likely to be implemented than less expensive ones. However, the level of resource support available to the project from all sources may affect implementation. Thus, while Rayder and Barnes' (1977) overall findings regarding fiscal resources available to a project were similar to those of Berman and McLaughlin, they found in areas of intense poverty that implementation could be very difficult. Rayder and Barnes also point out that the short-term nature of federal funding can make planning difficult.*

However, more important than the funds themselves are the resources which those funds can provide, as many studies have pointed out. Rayder and Barnes (1977) write of the necessity of having packaged materials. They point out that the more developed the materials at the project start-up, the more project resources can be expanded upon project implementation. Proper and St. Pierre (1979) recommend that projects have up to a year's materials available before they start up, in order that the teachers may focus their attention on learning what the project is about and not worry about developing or finding materials as well. Peterson (1978) writes of the need for having descriptive brochures and training manuals.

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*Case No. 21 provides an example of how the timing of federal and state assistance creates a problem in implementation.

Overall, project directors, principals, and teachers reported that both the quantity and quality of the available materials helped in the local implementation of Title VII.* It was found that 77 percent of all Basic projects received materials, services, or training from a Bilingual Education Service Center (BESC). At least two-thirds of project directors reported the services and materials received from BESCs were moderately effective or very effective in the areas of planning, operations, achievement and proficiency test selection, working with parents, and evaluation. Assistance received from state education agencies was also reported as useful. Specifically, fifty-eight percent of project directors reported that programmatic and resource materials received from their SEA were useful.

5.2.2 The Combined Influence of Federal, State and Local Factors

As pointed out earlier, broad based participation, pre- and inservice training, program development/modification, feedback mechanisms, and resource support do not influence the process of implementation and program operations in a vacuum; they are interrelated. Therefore, in addition to exploring the extent to which individual factors were reported to enhance or impede project implementation, analyses were conducted to explore their interrelated influence. Because project directors and teachers are the types of personnel most closely involved with project operations, and because each group brings a somewhat different perspective, information provided by each of these two groups was examined separately in this assessment of factors which appear to impede or enhance implementation.

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*However, Cases No. 9 and 22 mention problems in obtaining materials for Korean language students. For a project which illustrates the sufficiency of Spanish-language materials, see Case No. 13. See also Development Associates' inventory and assessment of gaps in the availability of bilingual curriculum materials (1978). Case No. 6 illustrates how the lack of curriculum materials became a factor which hindered implementation.

Several aspects of project implementation were examined and were used as dependent measures. They were selected to represent the diverse areas of Title VII concern. As mentioned in Chapter 2, the influence of various factors, or independent variables, on the classroom instructional component was examined through an assessment of: (a) the influence of those factors on the language used for instruction in seven different subjects; (b) the use of the pull-out model for instruction in those same seven subjects; and (c) the use of aides, again in the seven subjects. The examination of the classroom instructional component also included an assessment of the influence of these various factors on the reported implementation of the project's planned instructional objectives, approach, curriculum, and entry-exit procedures. The examination of the management component included an assessment of the influence of the several factors on the implementation of project plans for evaluation, staffing, and dissemination. The variables used in the assessment of the staff development component included the reported implementation of the project's overall staff development plans, and the extent of staff training. Finally, the reported overall implementation of the parent/community involvement component was also examined.

While there is a content similarity in the project director and teacher information examined, the basic information provided by each group was somewhat different. The specific dependent measures of project implementation used for the project director and teacher analyses are presented in Chapter 2. The specific federal, state, community, district, school and project-level factors of independent variables which have been examined in each of the multiple regression analyses are also presented in Chapter 2.

Table 5.21 (A-E) presents an overall summary of the stepwise multiple regression analyses which were conducted with these independent variables and dependent measures of project implementation. Each column of Table 5.21 contains an indication of which variables were significantly associated with a particular dependent measure, and the overall proportion of explained variance (or R^2 value) due to including all statistically significant variables in that particular multiple regression analysis.

TABLE 5.21-A

SUMMARY OF RELATIONSHIP BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLES (DATA SOURCE: CLASSROOM TEACHERS, N=242)

	Dependent Variables								Dependent Variables			
	Use of Native Language for Instruction in									Staff Development Component Training		
Independent Variables*	Eng	ESL	Nat RLA	Math	Social Studies	Science	Cul. Enrich	Average	Implementation of plans for materials	No/Yes	Hours	or certification
Project												
Size										+	+	+
Age	+		+		-	-				+		+
Language												
(Other/Spanish)				+				+		-		+
Number (#:1-4)	+	+			-	-			-	-		
Class size	+		-	+							+	
Factors affecting implementation												
District												
School	+											
Community										+		+
Project						+		+	-			
Management-effectiveness									+	+		+
Training												
No/yes			+	+	+							
or certif.	+					+	+	+	-			
Hours												
Use of pull-out												
Use of aide												
Proportion of Explained Variance (R^2)	.35	.04	.12	.22	.25	.35	.20	.40	.23	.30	.10	.35

TABLE 5.21-B

SUMMARY OF RELATIONSHIP BETWEEN
INDEPENDENT VARIABLES AND DEPENDENT VARIABLES
(DATA SOURCE: PROJECT DIRECTOR, N=401)

Independent Variables	Dependent Variables											
	Language used in Instruction											
	Math		Reading		Science		Social Studies		Other		Average	
	Both	English	Both	English	Both	English	Both	English	Both	English	Both	English
Project												
Size		-										
Age							+	-				
Language (Other/Spanish)												
Number (#:1-4)												
Class size												
Factors affecting implementation												
Federal												
State						-						
District												
School		-										
Community												
Project	+		+	-					+	-		
PD involvement												
Evaluation	+	-	+						+			
Parents				-		-				-		-
Review of achievement												
PAC assistance	+	-	+	-	+		+				+	
Materials - (adequacy)												
Instructional				-								-
Equip/supplies	+		+		+		+				+	
Parent/commun.												
OBEMLA (Helpfulness)			+		+	-	+	-			+	
PD (years)			+			-		-				
SEA (Helpfulness)					+		+	-				
BESC Service (effectiveness)												
EDAC mat. (extent)												
Inservice												
Prop. Teachers												
Prop. Aides										+		
Proportion of Explained Variance (R^2)	.15	.18	.15	.16	.14	.16	.18	.13	.09	.13	.14	.11

TABLE 5.21-C

SUMMARY OF RELATIONSHIP BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLES (DATA SOURCE: CLASSROOM TEACHERS, N=242)

Independent Variables	Dependent Variables: Use of Pull-Out for Instruction in								Dependent Variables: Use of Aide for Instruction in							
	Eng	ESL	Nat RLA	Math	Social Studies	Science	Cul. Enrich	Average	Eng	ESL	Nat RLA	Math	Social Studies	Science	Cul. Enrich	Average
Project																
Size	-					+			+							+
Age (new/old)		-	-													
Language																
(Other/Spanish)					+	+									-	-
Number (#:1-4)									-	-	-	-	-	-	+	-
Class size										+				+		
Factors affecting implementation																
District																
School														+		+
Community																
Project																
Management-effectiveness			+	+				+				+	+			
Training																
No/yes			-		-											+
or certif.		-		-		-		-		+		-		+	+	
Hours																
Use of aide (no/yes)		-				-		-								
Use of Native Language (no/yes)																
Proportion of Explained Variance (R^2)	.03	.42	.42	.09	.10	.19	-	.18	.19	.28	.05	.27	.08	.16	.23	.25

TABLE 5.21-D

SUMMARY OF RELATIONSHIP BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLES (DATA SOURCE: PROJECT DIRECTOR, N=401)

Independent Variables	Dependent Variables				Dependent Variables	
	Instructional Component				Staffing Development Component	
	Objectives	Entry/exit	Approach	Curriculum	Overall Plans	Proportion Teachers and Aides Receiving Training
Project						
Size					+	
Age						
Language						
(Other/Spanish)						
Number (#:1-4)						
Class size						
Factors affecting implementation						
Federal						
State						
District						
School		+		+		
Community						
Project						
PD involvement						
Evaluation						
Parents					+	+
Review. of ach.		+				
PAC assist.				+		+
Materials adequacy						
Instructional						+
Equip/supplies						
Parent/commun.						
Inservice						
Prop. Aides	+		+			
Parents						
SEA (Helpfulness)	+		+			
PD (years)						
EDAC Mats						
Bi_C					+	
Proportion of Explained Variance (R^2)	.09	.06	.07	.12	.09	.15

TABLE 5.21-E

SUMMARY OF RELATIONSHIP BETWEEN
INDEPENDENT VARIABLES AND DEPENDENT VARIABLES
(DATA SOURCE: PROJECT DIRECTOR, N=401)

Independent Variables	**Dependent Variables**					
	Management Component					
	Evaluation	**Staffing**	**Dissemination**	**Objectives**	**Materials**	**P/C involvement**
Project						
Size						
Age						
Language (Other/Spanish)						
Number (#:1-4)						
Class size						
Factors affecting implementation						
Federal						
State						
District			+	+		
School	+					
Community						
Project						
PD involvement						
Evaluation						
Parents						
Review of ach.						
PAC assist.			+			
Materials adequacy						
Instructional						
Equp/supplies						
Parent/commun.						
Inservice Prop. Aides	+				+	
Inservice Prop. Teachers						
SEA (Helpfulness)	+				+	
PD (years)	+					
EDAC Mats.						+
BESC						
Proportion of Explained Variance (R^2)	.14	-	.09	.05	.06	.03

Some guidelines for interpreting Table 5.21 need to be mentioned here. Independent variables having a (+) sign in their corresponding row were *positively* related to a particular dependent measure (i.e., they had positive beta weights), while those independent variables with (-) signs indicate a *negative* relationship with the dependent measure of project implementation. Furthermore, the larger the proportion of explained variance or R^2 value, the more that those independent variables are associated with the dependent measure, and conversely, the less likely it was that other factors, not included in the empirical regression equation, tend to "explain" the relationship.

Certain independent variables were generally not associated with the dependent measures and thus generally lacked either (+) or (-) signs. These variables, therefore, appear to be unrelated to various types of project implementation. However, this would be a faulty and perhaps hasty conclusion as typified by the following examples: (a) class size does *not* affect how pull-out approaches are used to offer instruction in certain subject areas, or that (b) the use of an aide does *not* affect the use of the native language for instruction. Referring to the style of Table 5.21, the lack of a (+) or (-) simply indicates (in the case of example (b)) that the use of an aide *has not been found* to affect the use of native language. It does *not* indicate that the use of an aide has *no* effect on the use of native language. These were two of the variables which empirically failed to enter into a number of multiple regression analyses of Study data. Thus, these two hypotheses (class size affects how pull-out approaches are used, and use of an aide affects use of the native language) were *not* disproved. Rather, they *just failed to be proved* in the present Study.

Extending this discussion, one or more of the following factors may have occurred to cause the patterns reported in Table 5.21. Certain Study questionnaire items used may have had low variance, i.e., a disproportionately high number of respondents selected a particular answer. Or, certain variables may be highly correlated with other independent variables and therefore did not contribute to the overall relationship in their own right. Or, certain variables needed to be measured in a much more precise and indepth manner than was feasible in this Study. This may explain why only one variable was associated with the extent of parent and community involvement. The variable or dimension (parent involvement) may be much more complex than could be treated by this Study, whereas the recently completed Parent Involvement Study (Cadena-Munoz & Keesling, 1981) focused on Title VII and devoted Volume 4 of its final report series to this topic alone.

In general, the R^2 levels in the tables indicate that the independent variables used in these multiple regression analyses were somewhat more related to instructional component indices than to the staff development, project management, or parent and community involvement indices of project implementation. R^2 values of instructional component indices ranged from .03 to .42, with several of them being above .30. In contrast, none of the R^2 values associated with other indices exceeded .15. This pattern was true whether classroom teacher or project director information was used, although teachers were a relatively more valid source of staff development levels, as might be expected. Examining the teacher data relationships presented in Table 5.21, one also sees from the R^2 levels that they were relatively higher than those from project directors; none of the latter groups' R^2 levels exceeded .15. It was therefore possible to more readily use teacher data to identify the factors associated with (1) the use of the native language for instruction; (2) the use of aides for instructional purposes; and (3) the use of pull-out approaches.

With the above comments as an overall context for understanding Table 5.21, more specific findings presented in that table immediately follow.

5.2.2.1 Use of the Native Language for Instruction

As Table 5.21-A shows, a variety of factors appear to influence the use of the native language for instruction. A few factors (age of project, training, etc.) seem to influence the use of the native language in a number of subjects, while other factors (school factors, project factors, etc.) appear to influence the use of the native language in only one or two subjects. This pattern* is found throughout the analyses.

The native language was used more extensively for instruction in all served subject areas by teachers who had training and/or certification in bilingual education. The combination of factors which seem to influence the use of native languages for instruction in English include age of the project, number of languages, class size, school level factors and bilingual certification of the instructor ($R^2 = .35$). A similar pattern of factors influences the use of native languages for instruction in the area of science. However, there is a negative correlation between number of languages and age of the project. It would seem clear that two or more languages in a project would present difficulties (in the lack of trained instructors, special language materials, etc.) in the teaching of science. The independent variables used in this study had a very low, although some relationship to the use of the native language in ESL, and native reading language arts ($R^2 = .04$ and .12, respectively). These results also indicated that projects only serving Spanish students were more likely to use the native language for instructional purposes than other projects.

According to the information provided by the project directors (Table 5.21-B), selected factors at the federal, state and local levels are related to the language used for instruction. The overall helpfulness of both OBEMLA and the SEAs, parent and community involvement, and the adequacy of materials were positively associated with use of both English and the native language in the instruction of reading ($R^2 = .15$), science ($R^2 = .14$) and social studies ($R^2 = .18$). A slightly different pattern is that which shows that project level factors and project director involvement in evaluation, in combination with parent and community involvement and the quality of equipment and supplies, are strongly associated with the use of both languages in the instruction of math (R^2= .15). However, OBEMLA and SEA helpfulness showed no significant relationship to this area. Analysis also showed that the more involvement of federal agencies, parents, OBEMLA and the years of experience of the project director, the less likely that only English would be used in the instruction of science (R^2= .16). Differences between overall project director and teachers' responses may be partly explained by the external view of the project which the project director has, as contrasted with the internal view of the teachers.

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*Since scattered patterns are frequently artifactual, this discussion will concentrate on the more common patterns. However, since scattered patterns can frequently provide analysis with information and insights for future hypothesis testing, the reader is encouraged to explore these divergent patterns in Table 5.21 Parts A-E and Appendix 4: Variables Used in Multiple Regression Analyses and Their Associated Reliability (Alpha) Coefficients.

While it is not possible to state with any degree of certainty why all of these external and internal factors are associated with the use of both languages for instruction, it is not difficult to suggest logical hypotheses for some of them. For example, one of OBEMLA's many duties is to encourage compliance with the Title VII mandate to use the native language for instruction as long as the student needs such help. The positive relationship between the helpfulness of OBEMLA and the use of both languages could be purely circumstantial or it could be causal.

The positive (albeit low) association of PAC assistance and the use of both languages across grade levels also suggests similar alternative hypotheses. For example, it may be that PAC involvement is related to the degree to which the parents and PAC members are concerned that their children are taught in their native language. Therefore, PACs which are more involved in the development of project applications may be precisely the ones which are more concerned that the student's native language be used within the school setting. Alternatively, it may be that as the project succeeds in obtaining PAC assistance, PAC members become more aware of the students' immediate academic needs and thus encourage the use of the native language, so that the students will not fall behind their all-English speaking peers academically as they learn English. The positive association of the adequacy of materials and supplies with the use of both languages across grade levels appears to be somewhat more straightforward. Having native language materials is a major aid to teaching in the native language.

5.2.2.2 The Use of Aides and Pull-Out Approaches

As Table 5.21-C shows, some of the strongest relationships involved the use of native language and two other instructional variables: the use of aides and the use of pull-out. The use of the pull-out approach for ESL and native reading and language arts was strongly related (although negative in direction) to teacher training/certification and project age ($R^2 = .42$). Pull-out was more likely to be used for instruction in ESL and native reading and language arts if the project was new and the teacher was neither certified nor trained in bilingual education. In addition, pull-out was more likely to be used for ESL if aides were not involved in ESL instruction.

Teachers who were certified in bilingual education, or who had at least received some training in the area, were more likely to use aides to assist in the instruction of ESL ($R^2 = .28$), science ($R^2 = .16$) and cultural enrichment ($R^2 = .23$) and not use aides in mathematics instruction ($R^2 = .27$). This, along with the use of pull-out by teachers who are not certified or have relatively less training, suggests a not unexpected picture. That is, when the classroom teacher lacks special training, the students are pulled-out of the classroom and provided instruction by a specialist in ESL, science, and cultural enrichment. However, when the teacher is specially trained, he/she provides such instruction within the classroom. This relationship between training and instruction is therefore both expected and prevalent.

Teachers in projects which served several languages were also less likely to use aides than projects which served only one or two languages. It may be that when a project works with fewer languages, it is more able to find aides who speak the language because there are more qualified people in the community. Alternatively, projects which serve many languages may not be able to find aides who speak the various languages. Furthermore, the number of students who speak any specific languages may be too small for a project to employ an aide.

5.2.2.3 Overall Instructional Components

Few relationships emerged in the examination of factors which influenced the overall instructional component (Table 5.21-D). Implementation of instructional objectives and of the overall instructional approach was positively but very weakly associated with the proportion of aides who were trained and the helpfulness of the SEA ($R^2 = .09$). The involvement of school level staff was also associated with implementation of the overall bilingual curriculum and entry/exit procedures. The proportion of teachers and aides receiving training was also positively associated with directors working with parents, with PAC assistance in proposal development and in the adequacy of instructional materials ($R^2 = .15$).

The fact that there were fewer relationships among aspects of the curriculum component in the project director than in the teacher data may be caused by a number of different factors. For example, it may be that the teacher variables were in more relevant instructional domains than were the project director variables. Another possibility is that because project director responses tend to be global (i.e., dealing with a full project's operations rather than with any single school grade, or classroom) the responses therefore mask considerable and important variability at the within-project level. This is entirely possible, given the need for individual teachers to tailor their instructional approaches to particular language groups, levels of language proficiency, etc. Still, it should be kept in mind that the relationship between these variables (R^2 values) were extremely weak and so even these findings must be viewed with caution.

5.2.2.4 Staff Development

Staff development was related to selected project characteristic data (Table 5.21-D). Teachers in older and larger projects and teachers who reported that project management was effective were more likely to have been certified or received at least some training in bilingual education. Such variables explained about one-third of the variance in the existence of teacher certification. However, what perhaps was somewhat unanticipated was that the same variables were almost completely unrelated to the hours of teacher training received by teachers. A likely explanation is that reported hours of training may be too gross to serve as a sensitive measure of training effectiveness, and therefore no set of important independent variables would be significantly associated with it. However, whether or not teachers are certified appears to be a reasonably good measure of staff development.

Parent and community participation also appeared to be related to staff development ($R^2 = .15$). Project directors who reported more assistance from the PAC in developing their application and more ongoing involvement with parents also reported that a larger percent of their teachers and aides had received training during the year of the Study team's site visit. The teachers corroborated this positive relationship. That is, teachers who reported that they were certified in bilingual education or had received some training in it were more likely to report that the community was a positive factor in the implementation of such projects.

5.2.2.5 Project Management

It was noted above that factors at the school level appear to be playing a small, but significant role in the implementation of the instructional component. Factors at the district level appear to be playing a similar role in the management component. As the field staff notes and case histories developed during this Study suggest, the district may define the overall project. However, each school has a degree of autonomy, and the role played by each school's administrative staff cannot be ignored.

Other factors which were positively associated with the implementation of the management component included three variables which have emerged as important contributors to a number of aspects of implementation: PAC assistance in application preparation, the proportion of aides trained, and the overall helpfulness of the SEA (Table 5.21-E). The positive relationship between aide training and project implementation is not particularly unexpected. PACs are mandated because it has been assumed that they could contribute to project implementation. As discussed in Chapter 3, this assumption, in terms of PAC participation in the application process, appears to be supported, at least to some extent, by the data obtained in this Study. SEAs, however, have historically not been an integral part of the Title VII program, but they show up as an important contributor to program implementation. This may be because they have been left relatively free to assist in whatever ways that they are needed, and thus are able to tailor their services to individual LEAs' or projects' needs. It should be kept in mind that the associations between all independent variables and dependent variables in the management component are low, ranging from R^2= .03 (parent and community involvement) to R^2= .14 (evaluation).

5.3 Institutionalization

Part of the ESEA Title VII mandate has been that projects make plans for the continuation of the program after Title VII funds terminate. Program continuation is likely to occur in either of two ways: the LEA finds a new external source of funds or it "institutionalizes" the program's components. That is, it incorporates the components into its regular school program and budget. If the program is continued through another external funding source, the LEA is simply putting off the problem of discontinuation or institutionalization until a later time. In most cases a program will be incorporated into the school's regular budget through some combination of the following: (a) the program is modified so that it needs little or no money specially allocated for its continuation; (b) monies are taken from other previously budgeted activities; or, (c) the program's budget needs are added to the LEA's budget. In these times of budget austerity, intense pressures are likely to lead to modifying programs so that they will not require additional funds.

Programs are also more likely to be continued if district staff believe that they are effectively meeting local needs. In general, both program and district staff interviewed in the present Study spoke favorably of their Title VII programs.* Almost three-quarters of the interviewed superintendents believed that their local program was effectively accomplishing its overall goals to a great or very great extent. The remainder (28%) believed that their local program was effective to some extent. Over one-third of both the classroom and resource teachers found Title VII to be a vital addition to the district system, and an additional third considered it to be a definite advantage. One-quarter thought that it could be an advantage if it were improved in certain ways. Less than 7 percent of either group of teachers found it either ineffectual or more of a hindrance than a help. Over half of the PAC chairpersons rated the quality of project teaching, materials, management, and relations with parents and the community to be very good. The quality of support provided by the school district administration was rated lower with over 17 percent of PAC chairpersons providing ratings of poor or fair. However, forty five percent of PAC chairpersons still rated the support of the school district to be very good. Approximately three-quarters of them very much agreed that students both read better and spoke English better, and less than one-third agreed very much that the students were using their native tongue more rather than less.

The federal programs coordinators' assessment of the effectiveness of their local Title VII programs in accomplishing overall goals did not vary extensively by project characteristics. The principal's assessments also did not vary except principals in new projects tended to report that their students had been helped by Title VII participation to a greater extent than did principals of older projects.

Interviewees were asked to rate the extent to which they believed that their program had had a positive impact on each of seven areas: spoken English, academic skills, English language reading skills, native language skills, cultural awareness, attitude toward school, and self-image. The rating scale was as follows: 4 = very great; 3 = great; 2 = some; and 1 = little or no impact. Table 5.22 summarizes the data by: (a) presenting the mean and standard deviation for each type of respondent by area of positive impact, and (b) the percent of respondents choosing each point on the rating scale. Results showed that most mean scores fall in the range of 2.6 to 3.5, i.e., about halfway between "some extent" and "great extent," and about halfway to "very great extent." While most respondents viewed the program positively, there was some variability in their responses. In general, they were most favorably impressed with the program's positive impact on student attitudes toward school and on self-image.* Ratings of native language skills varied more than did ratings of other areas indicating a greater spread of viewpoint, regardless of type of respondent, on how much the Title VII project had affected that area. However, even in this area, over half of the respondents reported that the program had had great or very great impact.**

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*See Case No. 10 for an example of the positive difference which a supportive principal can make, and Case No. 2 for a negative example.

There was little to no variation by project type in K-6 federal projects coordinators' assessment of the extent to which they believed their Title VII projects had had a positive impact on five of the seven areas: spoken English, academic skills, cultural awareness, attitude toward school, and self-image. However, coordinators did show some variation by project type in their assessment of impact on English language reading and native language skills. Specifically, coordinators of mid and large size projects tended to report a higher degree of impact on native language skills than did coordinators of small projects. In addition, the coordinators in large non-Spanish-only projects tended to report a higher degree of impact on English language and reading. Finally, coordinators in the new Spanish-only projects and older other language projects tended to report a higher degree of impact on English language reading skills than did those in other projects.

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*See Case No. 8 for an example of academic progress attributed to increased self-esteem.

**Case No. 20 supplies an illustration of the positive impact of the program.

TABLE 5.22

RESPONDENTS' PERCEPTIONS OF AREAS OF POSITIVE IMPACT
(DATA SOURCE: SEE RESPONDENT COLUMN BELOW)

					Percent Reporting Extent of Impact of:			
Area	Respondent	Number Responding	Mean	S.D.	(1) Little/ No	(2) Some	(3) Great	(4) Very Great
Spoken English	Superintendent	53	2.7	.8	6%	31%	48%	15%
	Federal Programs Coordinator	55	2.8	.9	4	30	48	18
	Project Director	59	3.2	.8	1	17	41	41
	PAC Chairperson	55	3.4	.6		9	47	44
	Teacher:							
	Classroom	274	2.7	.9	11	32	38	20
	Resource	167	2.8	.9	9	30	38	23
Cultural Awareness	Superintendent	56	3.1	.7		22	52	26
	Federal Programs Coordinator	55	2.9	.8		30	49	21
	Project Director	59	3.1	.8	4	15	45	36
	PAC Chairperson	54	3.3	.7		12	48	40
	Teacher:							
	Classroom	271	3.0	.9	7	24	36	34
	Resource	157	3.1	.8	3	22	39	36
Academic Skills	Superintendent	55	2.9	.8	5	22	55	18
	Federal Programs Coordinator	52	2.8	.8		32	57	11
	Project Director	59	3.1	.8	1	21	45	33
	PAC Chairperson	53	3.3	.7		12	48	40
	Teacher:							
	Classroom	271	2.8	.9	7	27	40	25
	Resource	163	2.9	.9	6	24	44	26

TABLE 5.22

RESPONDENTS' PERCEPTIONS OF AREAS OF POSITIVE IMPACT (Continued)
(DATA SOURCE: SEE RESPONDENT COLUMN BELOW)

Area	Respondent	Number Responding	Mean	S.D.	Percent Reporting Extent of Impact of: (1) Little/ No	(2) Some	(3) Great	(4) Very Great
English Language Reading Skills	Superintendent	55	2.7	.9	7%	32%	41%	20%
	Federal Programs Coordinator	53	2.7	.9	5	33	51	11
	Project Director	57	3.2	.8	1	21	35	43
	PAC Chairperson	53	3.5	.6		7	35	58
	Teacher:							
	Classroom	272	2.8	.9	10	28	39	23
	Resource	157	2.8	.9	10	23	40	26
Native Language Skills	Superintendent	49	2.6	.9	12	30	43	15
	Federal Programs Coordinator	48	2.8	1.0	3	45	21	31
	Project Director	59	2.9	1.0	8	26	32	34
	PAC Chairperson	56	3.0	1.0	8	25	28	39
	Teacher:							
	Classroom	225	2.9	.9	8	22	44	25
	Resource	143	2.7	1.0	13	28	32	27
Self Image	Superintendent	56	3.1	.8	1	19	48	32
	Federal Programs Coordinator	52	3.1	.9		29	38	33
	Project Director	53	3.5	.7		13	22	65
	PAC Chairperson	54	3.5	.6		7	32	61
	Teacher:							
	Classroom	272	3.2	.9	5	14	40	41
	Resource	165	3.3	.8	5	11	33	52
Attitude Toward School	Superintendent	54	3.2	.7		20	45	35
	Federal Programs Coordinator	52	3.0	.8		27	48	25
	Project Director	55	3.5	.7		10	30	60
	PAC Chairperson	56	3.4	.7		10	40	50
	Teacher:							
	Classroom	271	3.2	.9	7	15	35	44
	Resource	165	3.3	.9	4	15	31	50

Two other points are of interest when examining these data: (a) PAC chairpersons consistently rated the impact on each area of the project higher than any other type of respondent did, perhaps indicating their external view of project effectiveness, and (b) classroom and resource teachers were very similar in how they rated project impacts, regardless of which area was being rated.

Half of the project directors believed that most or all of their students would be able to function effectively in an all-English classroom when they left the Title VII program. Fourteen percent, however, believed that less than half of their exiting students would be able to function effectively. The project directors were also asked about students' ability to function effectively in speaking, listening comprehension, reading, writing, and subject matter knowledge. Overall, their responses did not differ by project type across these topics.

When superintendents in K-6 projects were asked how Title VII had affected their system's capacity-building efforts, over 30 percent said that it had assisted in current staff training and development, and in the procurement of new staff, or materials and resources. An additional 9 percent said that it had helped institutionalization while 12 percent said that the complex rules and regulations had negatively affected that effort. Furthermore, almost 20 percent (including both new and continuation projects) said that Title VII had had no effect. The remainder of responses were scattered.

In response to an open-ended question concerning what was the most important thing about the school system's bilingual education program, fifty-one percent of superintendents said that bilingual education is a needed service, and 31 percent said that outside funding was essential if their programs were to continue. It was also found that 76 percent of superintendents and 82 percent of federal programs coordinators thought that bilingual education services would be reduced or dropped and only about 20 percent of superintendents and 17 percent of federal programs coordinators thought that the level of the project would remain the same if

Title VII funding were reduced or discontinued.* An additional 4 percent of superintendents and 2 percent of federal programs coordinators indicated that their program would be expanded. Similarly, 72 percent of principals thought that services would be reduced or dropped and 26 percent said that services would remain the same if funding is reduced. Reducing the number of teacher aides was most frequently mentioned as the way in which services would be reduced. Inservice training was the next most frequently cited area for service reduction, followed by: cuts in the number of bilingual resource teachers, the amount of instructional material, and the hours of instruction using the native language (probably related to the number of bilingual resource teachers). The least frequently mentioned methods of service reduction were shifting from in-class to pull-out programs, and the serving of fewer students.

There was no variation by project characteristics in coordinators' assessments of what would happen if Title VII funding were reduced or discontinued. However, principals showed some variation by type and number of languages served. Principals of non-Spanish projects were significantly different from Spanish-only and Spanish-plus projects. The former reported that their projects would, on the average, tend to remain the same. In contrast, the latter reported that their projects would, on the average, tend to be reduced. In terms of the number of languages served, principals of projects serving one language and of projects serving four or more languages differed significantly from principals of projects serving three languages. The former indicated that their projects would tend to be reduced; the latter, that their projects would tend to be dropped.

When they were asked about changes that they, as superintendents, thought needed to be made in the legislation or rules and regulations, 30 percent of these district leaders said that greater provision needed to be made for local projects to reflect local community standards. Almost half also said that the timing of funding should be advanced in order to allow for more effective planning at the district and project levels.

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*See Case No. 16 for the problems caused in a program if Title VII funds were reduced.

5.4 Summary

One objective of this Study was to describe the instructional approaches used by Title VII projects and to determine if distinctly different approaches were used. It was found that more than one instructional approach was frequently present within the same project, but that groups of projects did not cluster meaningfully in terms of the approach or approaches employed. For example, although 27% of the project directors interviewed reported that an externally developed educational model had been adopted, no more than two project directors reported adopting the same model. Overall, it was found that projects were highly diverse. This diversity carried over within projects, with the approach used often varying by grade level in response to local perceptions of student needs.

Based on interviews with the project directors and using the modified Fishman-Lovas typology it was found that: a small proportion (7%) of the projects operating at the K-6 level use only English (Type I); the majority (69%) of projects use both English and the native language (Types II-IV). However, all of these types of projects have a major focus on English and vary in their extent of use of the native language. A significant proportion (21%) of the projects use both languages, i.e., a bilingual educational approach (Type V). Three percent of the projects reported a "mixed" typology.

These findings were generally corroborated by teacher reports of the time they spent in English and native language instruction. In English reading and language arts, ESL, mathematics, social studies and science, teachers reported devoting more than 70% of their time to instruction in English, on the average. For cultural enrichment, English was used 61% of their time. Only in native reading and language arts was the native language used for instruction a predominant part of their time (88%). Overall teachers reported a 72 percent median use of English as the language for instruction. Thus, it is clear that the projects use English as their predominant language of instruction with the native language being used to a varying degree depending on the subject taught and the type of project.

The mean amount of group instructional time reported by teachers for LEP students varied widely by subject, ranging from a high of six hours per week in English reading and language arts to a low of about one hour per week in cultural enrichment. On the average, in the projects where native reading and language arts is taught, teachers reported that LEP students received group instruction for almost 3 1/2 hours per week.

The extent of use of English and native language for instruction also varied within project by grade level. In general, there appeared to be a greater tendency to use the native language more extensively at the lower grade levels and to use English more frequently at the upper grade levels. For example, in English reading and language arts, two-thirds of K-1 teachers reported using the native language to some extent but only about one-third of grade 2-6 teachers reported such use.

The language in which LEP non-readers were first taught to read varied by project language. While the native language was used exclusively in 75% of the Spanish-only projects, it was used in less than 20 percent of the projects that served other languages. Conversely, English was used exclusively in only 2% of the Spanish-only projects, but was used exclusively in over 60% of the projects serving other languages.

Project staff often try to integrate LEP students with their all-English-speaking peers to the greatest extent possible, while at the same time, providing needed special language help. The pull-out mode of instruction is one way of doing this. Nearly 40% of the projects used the pull-out model either exclusively or in conjunction with the in-class model. The frequency of the pull-out approach increased with grade level, with pull-out used more in grades three through six than in kindergarten through grade two. The use of the pull-out approach also varied by subject matter. For example, while about one-third of the classroom teachers reported using an in-class, teacher-only approach to teaching English reading and language arts, less than ten percent reported using such an approach to teach native reading and language arts or ESL.

Pull-out was used more frequently in conjunction with ESL than with any other subject area, where it was used to some extent by 23 percent of the classroom teachers who taught ESL. The pull-out approach was also used by about one-fifth of the teachers for native language and English language reading and language arts but was used less for teaching other subjects. In these two subjects, pull-out was more likely to be used for instruction if the project was in its first year or if the teacher was neither certified nor trained in bilingual education. Furthermore, the pull-out approach tended to be used most by teachers with no bilingual education certification, whereas the more trained and certified teachers tended to use a model utilizing in-class aides. This pattern suggests that projects are managing their resources well and adopting the instructional approach which maximizes the skills of the available staff.

Entry and exit into Title VII programs was usually determined by a combination of published tests and teacher observations. In addition, a variety of other methods, including both locally developed tests and parent surveys, were used. Overall nearly 30 different tests or approaches were reported. Projects used a wide variety of criteria including district norms, test levels, and percentiles to determine entry and exit. When district norms were used, the typical entry criterion was a half-year to two years below grade level; attainment of grade level was used typicaly as the exit criterion. For those projects using percentiles, the most common practice was for students to exit when they scored above the 40th percentile on the test being given. For both entry and exit, project directors were relatively more satisfied (over 80%) with the informal methods they were using, such as teacher observations and parent reports, than they were with formal instruments, such as commercially available tests (60%). Overall, they appeared to be slightly more satisfied with the methods they were using to determine exit than they were with the methods they were using to determine entry.

Multiple regression analyses were conducted to determine what types of factors were most related to (or influenced) the extent to which major project features were put into operation. In general, the factors found to most influence implementation were somewhat more related to instructional component indices (which included values of up to $R^2 = .42$ and $R^2 = .40$) than to the staff development, project management, or to parent and community involvement areas of project operations with the highest values of $R^2 = .15$, $R^2 = .14$, and $R^2 = .03$, respectively.

Training seemed to be positively related to the use of the native language in a number of subjects. The helpfulness of OBEMLA and the SEAs, parent and community involvement, and adequacy of materials were positively related to use of both English and the native language in reading, science, and social science. Teachers who were certified in bilingual education, or who had at least received some training, were more likely to use aides in teaching ESL, science, and cultural enrichment, and not use aides in teaching mathematics. Implementation of instructional objectives and of the overall instructional approach was positively, although weakly, associated with the proportion of aides who were trained and with the helpfulness of the SEA. The involvement of school level staff was also associated with implementation of the overall bilingual curriculum, and to entry/exit procedures. The proportion of teachers and aides receiving training was also positively associated with directors working with parents, with PAC assistance in proposal development, and with adequacy of instructional materials. Teachers in both older and larger projects were more likely to have been certified or to have received some training in bilingual education. Parent and community participation also appeared to be related to staff development.

Finally, it was found that PAC assistance in the application preparation process, the proportion of aides trained, and the overall helpfulness of the SEA were positively related to the implementation of the project management component. Thus, along with the use of the pull-out approach for instruction, scattered relationships were found, although no obvious pattern seems to have emerged.

While few teachers at any grade level expected their LEP students to be ready to transfer by the end of their current year, the majority expected their LEP students to transfer within two or three grades. Kindergarten teachers predicted the longest period of retention (2.7 years), while second grade teachers predicted the shortest (1.7 years). In general, the findings indicated that Title VII programs do not develop their own special procedures for following students after they leave the program. While most project directors reported that some type of procedure was used to follow up students who had left the program, the most common practice was to use whatever procedure was generally followed by the individual school.

Staff development appears to be an ongoing priority for Title VII programs. Seventy-six percent of the project directors reported providing their staff inservice training geared to meeting state certification requirements. The data showed respectively that 54%, 58% and 56% of the project directors reported that all of their teachers, aides, and special staff had participated in some type of inservice training during the school year studied.

Fifty-four percent of the classroom and 62% of the resource teachers reported they had received some type of bilingual training during the 1980-81 school year, prior to data collection in early 1980. Classroom teachers reported that they had attended an average of 23 hours of bilingual education training during that year. It was found that 87% of the classroom and resource teachers who had received training reported receiving it by means of inservice, either alone or in combination with graduate or undergraduate work. Teachers who reported using an ESL-only approach, or an approach which taught the native language only orally, reported less training than did teachers who reported using other language approaches.

A wide variety of topics was covered in inservice training sessions. Virtually all projects had sessions that included methods for teaching content areas to LEP students. Student needs, student assessment, and materials/curriculum development were also frequently mentioned topics. At least half of the teachers who had had training in a particular topic desired more training in the same topic.

Views on the role of parents and the community were mixed. Fifty-three percent of the Federal Program Coordinators felt they had helped to some extent. Forty-eight percent of the principals and 42% of teachers felt the community had mostly helped project operations. Similarly, 44% of principals and 49% of teachers felt this way about the parents role. This contrasts somewhat with a more extensive role for parents described by PAC chairpersons and discussed in Chapter 3.

Title VII programs, in general, appear to have a fairly broad base of support and participation within their districts. Fifty-six percent of the project directors reported that the assistance and cooperation of school administrative staff helped project operations to a great or very great extent and 66% reported that cooperation between project and non-project teachers helped ongoing operations. However, discussions with teachers often indicated that this ongoing cooperation did not extend to continuing discussions of pupil progress.

Title I was cited as the most common additional federal program source for support to students enrolled in ESEA Title VII projects. In most cases (86%), local support was provided for both teachers/instruction and for instructional materials for Title VII students. State support for local projects was also in evidence in at least half of the projects. The general picture which emerges is that students and projects in the Title VII program are interlaced with programs from other federal, state and local sources, although the extent of this assistance varies across schools.

Superintendents differed in the extent to which they believe Title VII has helped institutionalize its efforts and on its effectiveness. Over 30 percent of superintendents in districts having K-6 programs believe that Title VII had assisted in current staff training and development, and in procuring new staff, materials or resources. An additional 9 percent also stated that Title VII had helped institutionalization. There was more agreement, however, on the effectiveness of the project with three-quarters of the superintendents indicating the project was achieving its goals to a greater or very great extent and 51% indicating that Title VII is a needed service.

The importance of outside funding to bilingual education was underscored by the 31 percent of superintendents who stated that outside funding was essential if their programs were to continue, and the additional 3 percent who believe that the federal government should not merely provide "seed money," but instead cover all costs. Put another way, 82 percent of superintendents, 71 percent of federal programs coordinators, and 73 percent of principals in targeted schools stated that bilingual education services would be reduced if federal funds were to be reduced or discontinued. In fact, about 10 percent of these principals stated that their program would be dropped if federal support was reduced or discontinued. Reducing the number of teacher aides was most frequently mentioned by respondents as the way in which services would be reduced; the next most cited strategy was to reduce the extent of inservice training.

Data show that teachers reported few modifications in their instructional plans. In general, teachers did not think in terms of plans being made and then modified, but rather in terms of plans evolving. Approximately, one-quarter of teachers who were interviewed reported making modifications over the life of their project on their instructional approach, materials, and activities. These modifications were predominately related to students' grade and ability levels.

Feedback mechanisms through needs assessments, evaluations, etc., are typically viewed as being important to project implementation. Eighty percent of the project directors reported that they had conducted needs assessments during the 1980-81 school year, most frequently in the areas of staff development and student instructional needs. At least half reported that they had conducted needs assessments of materials and parent/community involvement. In addition, almost 80 percent of the classroom teachers reported that the projects' internal evaluations and monitoring efforts had generally been "moderately" or "very" effective in assisting the project meets its objectives.

According to implementation studies, adequate resource support is also necessary for project success. Project directors, principals, and teachers reported that both the quantity and quality of the available materials helped in local project implementation. It was found that 77% of all projects received materials, services, or training from a Bilingual

Education Service Center (BESC), and two-thirds of project directors reported that this support was moderately or very effective. Fifty-eight percent of project directors also reported that programmatic and resource materials received from their SEA were useful.

An important overall finding for this Study is that a majority of the projects had developed, and were carrying out, implementation strategies in each of five areas noted in the literature as essential to successful project implementation. That is: virtually all projects were formally endeavoring to generate greater, broad-based participation, and many were succeeding in this to an extent. Most projects were providing a substantial amount of inservice training to staff in areas considered of need by staff. The great majority of projects tended, for the most part, to adhere to planned activities as formulated when funded, yet allowed for modifications in the type and content of instruction where needed. The great majority of projects provided mechanisms for feedback, both formal and informal, through staff meetings, inservice training, and project evaluations, and were introducing modifications in the project based on this input. And, most projects reported that the resources available to them were sufficient to permit project implementation.

While it is reassuring that the majority of projects appear administratively able to serve limited English proficiency students, there are a substantial proportion of local projects which have encountered short-term or persistent barriers to effective implemention. This is indicated by several factors which include: a lack of administrative support within their target schools and within the district; lack of effective parent and community participation; a lack of coordination between teachers in Title VII and other teachers and staff; and a high incidence of staff who report a need for additional inservice training opportunities. Also, a potential problem is significant use of pull-out instructional methods which may indicate that an impediment is present. It could suggest a lack of qualified teachers, a small number of non-English proficient students who cannot be readily served, a curriculum design problem, or some related condition. All of the above-mentioned factors seem to be acting as barriers to effective implementation for a meaningful proportion of local projects.

This chapter has presented findings of the process of implementation in local bilingual education projects. The next chapter presents more detailed information on the skills addressed in the bilingual education classrooms.

CHAPTER 6
SKILLS ADDRESSED IN TITLE VII CLASSROOMS

6.1 Introduction

In addition to describing the structure of the Basic Program, this Study probed the skill areas taught in classrooms. Interviews with teachers provided specific data on the language arts skills addressed and some general information about the other subject areas. The teacher characteristics of preparation and experience were also analyzed to determine whether or not these were related to the skills addressed in the classroom instruction.

Since language development is the major thrust in the Title VII program, it was felt that an inventory of these skills was needed. Although several skills inventories have been developed by text publishers and school districts, they generally addressed specific materials or a designated curriculum. As a part of its assistance to Title VII program implementation, the federal government funded the development of a Language Skills Framework (LSF) by the Southwest Regional Laboratory (SWRL); at the time this Study began, the first draft of that inventory had been completed although final classroom testing had not yet been conducted. In spite of recent criticisms (Tucker, 1980; Gray and Potter, 1981), the LSF as a compendium of English language arts skills represented a step in the state-of-the-art toward isolating the essential skills needed by students to function effectively in an all-English classroom setting, and it offered a range of skills across texts and curriculum materials. Thus, it was deemed appropriate and sufficiently developed to be used as the basis for the skills descriptions in this present Study. Some modifications were made by Development Associates and the revision was titled the Classroom Skills Inventory (CSI).*

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*In as much as the CSI is comprised of 7 grade-specific booklets, only CSI (Grade 3) is provided as an example. See Appendix 11.

6.1.1 The SWRL Language Skills Framework (LSF)

The LSF identifies and describes English language skills which SWRL proposed are needed to function effectively in all-English speaking classrooms at each of seven (K-6) grades. This assignment of specific English language skills to grades in the LSF was primarily based on theory with no validation in the classroom. This was not much of a problem for reading and writing skills because the methodology used to develop grade level reading and writing skills was based upon substantial previous efforts (e.g., text publishers) to standardize these skills. However, the oral skills (with the exception of oral vocabulary skills) did not have an equivalent underpinning of extant grade level standarized material on which to build.

Other factors in addition to English language skills are required if a student is to perform effectively in all-English speaking classrooms, for example, motivation and knowledge of curricula content.* Thus, the LSF does not tap all information relevant to effective performance and the developers of the LSF clearly acknowledge this. However, the LSF does attempt to tap the language arts skills necessary to perform effectively in all English-speaking classrooms.

The skills described in the LSF are based primarily on published English language arts curricula used to teach English language skills to native speakers of English at the various grades. They are geared toward bilingual students who are approaching a level of English proficiency -- a quite high level or ideal level of proficiency -- which would make such students candidates for transfer into regular classrooms. In other words, the grade level norms implicit in the LSF are likely to be substantially higher than the level of English language proficiency of most students in Title VII projects. Unfortunately there were no available normative or empirical data to varify the extent to which LSF skills are taught in all English classrooms.

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*See Case No. 12 for an example of how a program has reduced the drop-out rate.

The LSF system comprises three major components: reading skills, writing skills, and oral language skills.* Each of these major components are in turn composed of four to six areas. The reading skill areas include decoding processes, comprehension, literary skills, and study skills. The writing skill areas include handwriting, spelling, mechanics, language, general discourse, and discourse products. The oral language skill areas include phonology,** oral language, sentence structure, and language usage. Most of the LSF areas are further broken down into sub-areas. For each identified sub-area, one or more skills were identified or defined by SWRL, although the number of skills associated with particular sub-areas vary greatly. Furthermore, the number of sub-area skills associated with particular grades vary substantially, so that in some cases a sub-area is represented only in lower grades (e.g., letter recognition) and in other cases only in upper grades (e.g., graphic representations). While this variation in the number of skills in each sub-area and grade is not necessarily a problem, theoretically or conceptually, it does represent a complication psychometrically, as is discussed in later subsections of this chapter.

Another psychometric complication of the LSF approach, as developed by SWRL, is that some items (skills) are stated to be appropriate to more than one grade. For example, a particular reading or writing skill might be seen as equally appropriate to second grade as to third grade. As elaborated further in a later subsection, one LSF sub-area of oral language skills has items attributed to as many as seven grades. Thus, to a large extent, the LSF system essentially lacks grade-specificity.

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*For a full description of the LSF components, areas, sub-areas and specific skills covered, as well as how each set of skills was developed and how grade levels were established, the reader is referred to SWRL (1980).

**Phonology was the only skill area not used in the Study's CSI instrument. Some sub-areas of LSF areas were also not used in the CSI.

6.1.2 Adaptation Of The Language Skills Framework (LSF) for Use as The Classroom Skills Inventory (CSI)

Adaptation generally involved taking the individual skills descriptions directly as stated in the LSF and converting them into an inventory item format for the CSI. Specifically, the adaptations included assignment of grade-specific skill items from the LSF to the grade-specific inventory lists of the CSI, making random selection of LSF vocabulary words and assigning them to a CSI booklet (whether a skill item was taught during the year, or whether the item was taught in English or the students' native language).

The respondents for the CSI were bilingual classroom teachers randomly sampled from grades K through 6 in proportion to classroom grades represented. Thus, there were more teachers sampled from lower classroom grades (e.g., K grade teachers = 58) than from upper classroom grades (e.g., 6th grade teachers = 18).

Because a typical classroom has LEP students at several different grade levels, it was necessary to focus, in administering the CSI, on the skill level of the majority of LEP students in the classroom. Therefore, each teacher was instructed to focus on the modal group of LEP students, as identified by the teacher in discussion with the interviewer, specifically as to whether each of the skills described in the CSI "has been or will be taught this year to the identified group of students, or have the students acquired or they will acquire the skill in some other way during this school year."

Teachers sampled for the CSI first received a Part A booklet which obtained background information on the teacher, the classroom, and the bilingual program as it operated in the teacher's classroom. One of the items on the Part A booklet obtained an estimate by the teacher of the number of LEP children (determined by the program) in his/her classroom generally functioning at each grade level from pre-K to 7th in English Language Arts. From this item the modal LEP grade for that classroom was determined by selecting the grade level for which the teacher indicated the greatest number of LEP students. This then determined which Part B booklet was to be completed, so that a teacher completed a booklet aimed at assessing skills taught or learned by these modal LEP students. Thus, if a teacher indicated the greatest number of LEP students was functioning at the pre-K or K level, the teacher completed the K level booklet. (There was no pre-K booklet because there are no pre-K skills in the LSF.) This booklet assignment approach was used regardless of the classroom grade of the teacher (e.g., in one unusual case a 6th grade teacher completed a K grade booklet because the greatest number of LEP students in her class were pre-K in English Language Arts). This procedure was utilized on the assumption that the teacher would aim English Language Arts teaching at the level at which most of the LEP students were functioning, rather than at the classroom grade level. The new variable based on the functional grade level of the modal LEP students was labeled "modal LEP grade" for this Study.

Generally, and as adapted by Development Associates, materials within a CSI booklet focused on four LSF skill grade levels: items two grades below the modal LEP grade, one grade below the modal LEP grade, on grade, and one grade above the modal LEP grade. For example, skill areas included in the booklet for modal LEP grade four included LSF second, third, fourth and fifth grade skill level items. No booklet contained items of pre-K skill level or any items greater than the 6th grade skill level, with the exception of a set of 24 Passive Vocabulary words from the LSF which was included on all booklets. These words generally are acquired by English-speaking natives prior to kindergarten.

In addition to the common set of essentially pre-K Passive Vocabulary words, two other measures were included in all CSI booklets. One of these measures was composed of 12 kindergarten level and 12 first grade level Active Vocabulary words. The other measure, Classroom Interactions, was composed of three sets of items covering grade spans K-6, 1-6, and 2-6, according to the LSF. Only the 2-6 items were not included on every booklet and the three sets, containing only six items in total, were treated as a single unit in the Study's analysis.

Finally, for some skill areas or sub-areas where there was some transfer of skills from the native language to English (e.g., letter recognition, in most languages), the teacher was asked to indicate whether skills were taught in English only, native language only, or both. This latter approach was used for Section II of the CSI (the areas and sub-areas generally appropriate only to English were presented in Section I) to provide for the possibility that skills were taught (or otherwise acquired) in the native language, as well as or instead of in English. To make scoring comparable to Section I, the scoring of Section II items was done so that a skill was considered taught as long as any of the three possible responses (taught in English, taught in native language, or taught in both) were indicated by the teacher.

Figure 6.1 schematically depicts the LSF components, areas, and sub-areas used in the CSI. This figure further indicates how individual skills (items) were aggregated to form composite scores. For example, the reading sub-area skills of decoding, structural analysis, and letter recognition were combined to yield a decoding process skill area measure. In turn, the reading area measures of decoding processes, comprehension, literary skills, and study skills were combined to yield a reading component measure.

Composite scores were utilized primarily for two reasons. First, composite scores based on a larger set of items provide a psychometrically more reliable and stable set of measures than do some of the sub-area sets which are based on very few items. Second, the use of composite measures based on aggregating sub-areas into areas, and areas into components, creates a manageable set of overview measures. This had not previously been done with the LSF.

The LSF items (skills) aggregated to form larger composites were given equal weight because no empirically validated weighting system had been derived.* Thus, sub-areas containing greater numbers of items carry a greater weight in the aggregate measure. The index utilized to yield a

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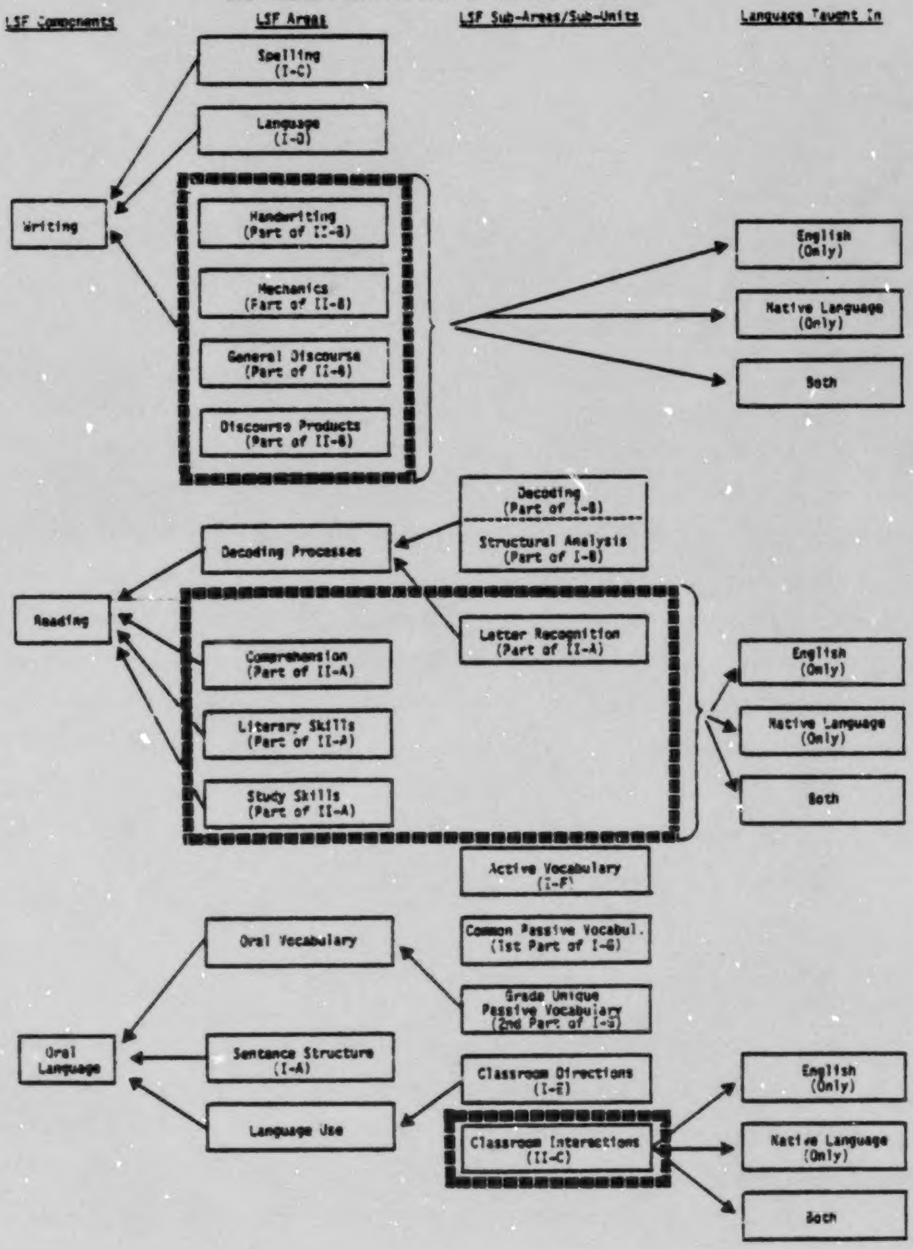
*Validation of the LSF may suggest other weighting systems.

FIGURE 6.1
SCHEMATIC OF AGGREGATION OF LANGUAGE SKILLS FRAMEWORK (LSF)
SUB-AREAS FOR ANALYSES OF SKILLS TAUGHT


LSF Components
LSF Areas
LSF Sub-Areas/Sub-Units
Language Taught In
Spelling (I-C)
Language (I-D)
Writing
Handwriting (Part of II-B)
Mechanics (Part of II-B)
General Discourse (Part of II-B)
Discourse Products (Part of II-B)
English (Only)
Native Language (Only)
Both
Decoding (Part of I-B)
Structural Analysis (Part of I-B)
Decoding Processes
Reading
Letter Recognition (Part of II-A)
Comprehension (Part of II-A)
Literary Skills (Part of II-A)
Study Skills (Part of II-A)
English (Only)
Native Language (Only)
Both
Active Vocabulary (I-F)
Oral Vocabulary
Common Passive Vocabul. (1st Part of I-G)
Grade Unique Passive Vocabulary (2nd Part of I-G)
Oral Language
Sentence Structure (I-A)
Classroom Directions (I-E)
Language Use
Classroom Interactions (II-C)
English (Only)
Native Language (Only)
Both

percentage of grade level skills taught was: the total number of skills for the measure at a particular grade level taught (or learned) during the year divided by the total number of skills included in the measure times one hundred.

Figure 6.2 provides further information regarding the item content of the CSI in terms of its LSF component, area, and sub-area origins (the three major conceptual levels of the LSF). Further, one or two sample items are presented to further illustrate the content and format of each LSF area or sub-area adapted to the CSI. Table 6.1 presents the number of items on the CSI assessing LSF area and component skills at each grade level.

It should be noted that the three sets of oral language skills that were constant across booklets (i.e., K grade and first grade Active Vocabulary; common pre-K Passive Vocabulary; and Classroom Interactions) were not aggregated into the grade level composite scores, but were considered more appropriate to treat separately. The CSI subsection or part of a CSI subsection where the LSF area, sub-area, or sub-unit was covered is noted in parentheses on Figure 6.1. Those LSF skills potentially also taught in the native language (Section II) are surrounded by a dotted line and break-out arrows to English (only), Native Language (only), or both. With the exception of the constant vocabulary and classroom interaction skill sub-areas, which were not amenable to meaningful aggregation, data were analyzed only at the LSF area and LSF component levels.

6.1.3 Measurement Considerations and Caveats

A number of limitations need to be mentioned to assure appropriate interpretation of the data. As can be seen from Table 6.1, there are substantial variations in the number of items (skills) per LSF skill component, area, or sub-area, and the numbers are often quite small. As a general rule, the larger the level of aggregation, the more reliable and stable the measures are likely to be. There are substantial variations in the number of items per sub-area, area or component depending on skill grade level such that the composite is made up of somewhat different

FIGURE 6.2

SAMPLE CLASSROOM SKILLS INVENTORY (CSI) ITEMS DERIVED FROM THE LANGUAGE ARTS SKILLS FRAMEWORK (LSF)

LSF Component	LSF Area/Sub-Area	Sample CSI Skill Description
Writing	Spelling*	Spell initial consonant sounds (ex: d-dog, c-cat; g-gate).
	Language*	Recognize correct word order: subject-verb-object (ex: The cow is eating grass).
	Handwriting**	Copy sentences -- manuscript form. Copy sentences -- cursive form.
	Mechanics**	Capitalize names of persons. Use a period to end a declarative sentence.
	General Discourse**	Use chronological order. Complete an open-ended story.
	Discourse Products**	Write a straightforward narrative of three or more sentences conveying events chronologically in response to a series of pictures. Write a straightline narrative of a paragraph or more conveying events chronologically in response to an oral instruction (ex: Tell me about the day you started school for the first time).
Reading	Decoding Processes/ Decoding*	Recognize initial/final consonants. Recognize variable pronunications of C and G.
	Decoding Processes/ Structural Analysis*	Recognize noun plural ending -- s Recognize irregular plural forms of nouns.

* In Section I: Taught in English (scored 0 or 1)

** In Section II: Taught in English and/or native language (scored 0, 1 = English only; 2 = native language only; 3 = both 1 and 2)

FIGURE 6.2 (Continued)

LSF Component	LSF Area/Sub-Area	Sample CSI Skill Description
Reading (Continued)	Decoding Processes/ Letter Recognition**	Recognize letter names (alphabet).
		Recognize letter shapes (upper/lower case).
	Comprehension**	Recognize meaning of words in context.
		Understand definitions.
	Literacy Skills**	Distinguish between fact and opinion.
		Recognize meaning of simile, metaphor, and idiom.
	Study Skills**	Find correct volume of encyclopedia for entry.
		Answer questions, based on map, legend, and compass.
Oral Language	Oral Vocabulary/ Grade Unique Passive Vocabulary*	Students' ability to understand words; not ability to say or use word -- sample grade unique words include: contribute (5th), maiden (4th), throne (3rd), citizen (3rd), etc.
	Sentence Structure*	Produce passive sentences with "be:" agent not specified (ex: The milk was spilled).
		Comprehend the distinction between sentence introducers "nevertheless" and "therefore."
	Language Use/Classroom Directions**	Produce requests beginning with "will," "can," "could," and "would" (ex: Can I have your book? Will you get me my pencil?).

* In Section I: Taught in English (scored 0 or 1)

** In Section II: Taught in English and/or native language (scored 0, 1 = English only; 2 = native language only; 3 = both 1 and 2)

FIGURE 6.2 (Continued)

LSF Component	LSF Area/Sub-Area	Sample CSI Skill Description
Oral Language (Continued)		Comprehend requests in adverbial "how" clauses (ex: I want to see how fast you can finish).
	Active Vocabulary* (An independent sub-unit in the CSI)	Students' ability to say word in English when cued by picture examples: tank, girl, refrigerator, wife, etc.
	Common Passive Vocabulary* (Treated as an independent sub-unit in the CSI)	Students' ability to understand words, not ability to say or use words (same as grade unique passive vocabulary) -- all are asked of all teachers and all are either K or 1st grade level words; e.g., about, if, their, water, write, etc.
	Classroom Interactions** (Sub-area of Language use, but treated separately because all items attributed to five, six, or seven grades)	Student responds to request (by teacher) when called upon by name. Example: T. What was the day before yesterday, Claudia? S. Sunday. Student requests further teacher explanation when needed (request for clarification). Example: T. Don't procrastinate! S. What? T. Don't put it off.

* In Section I: Taught in English (scored 0 or 1)

** In Section II: Taught in English and/or native language (scored 0, 1 = English only; 2 = native language only; 3 = both 1 and 2)

TABLE 6.1

NUMBER OF ITEMS USED BY THE CSI TO ASSESS EACH GRADE LEVEL LSF AREA AND LSF COMPONENT AGGREGATE OF SKILLS

Skill Components and Areas	Skill Level Grades							Mean Across Grades
	K	1	2	3	4	5	6	
Writing Skills								
Spelling	0	3	8	2	7	5	4	4.8
Language	0	1	1	4	1	3	1	1.8
Handwriting	0	1	0	1	1	0	0	0.5
Mechanics	0	0	5	3	5	3	0	2.7
General Discourse	0	0	2	1	1	3	4	1.8
Discourse Products	0	0	1	2	2	2	3	1.7
Total Writing Skills	0	5	17	13	17	16	12	13.3
Reading Skills								
Decoding Processes	0	9	10	12	2	2	2	6.2
Comprehension	0	4	6	10	8	5	2	5.8
Literacy Skills	0	0	0	0	0	5	5	1.7
Study Skills	0	0	1	1	3	6	6	2.8
Total Reading Skills	0	13	17	23	13	18	15	16.5
Oral Language Skills								
Oral Vocabulary	12	12	11	12	12	12	11	11.7
Sentence Structure	13	16	11	11	5	6	6	9.7
Language Use	10	5	5	5	3	3	3	4.9
Total Oral Language Skills	35	33	27	28	20	21	20	20.3

proportions (hence different weightings) of component measures depending on the skill grade level. There are also variations in the number of teachers per modal LEP grade, such that the number of teachers responding to a particular skill grade level decreases with increasing grade. Thus, very few teachers are assessed in terms of 5th and 6th grade skills taught, and the measures of these skills are therefore substantially less reliable than for lower grades. Often the joint number of teachers and items per skill level grade are low, particularly at upper grades, but sometimes also for lower grades (in terms of the number of items), again making these data less reliable and stable than data based on larger numbers of teachers and items. These psychometric considerations, while of some concern, could not be avoided due to the nature of the LSF and realities of LEP and classroom distributions found in the field for sampled projects under the Title VII Program. These difficulties are not a major problem as the CSI data can still be validly interpreted; in some cases, however, caution must be used.

6.2 Distribution of Limited English Proficient (LEP) Students Across Classroom Grades

Table 6.2 groups teachers by their students' modal LEP grade from K to 6, and then cross-tabulates this grouping with their actual classroom grades. The primary observation based on this table is that with increased classroom grades teachers assess, the modal LEP students found in their classrooms as to be functioning further below classroom grade level. This pattern shows that modal LEP students are most typically on-grade for the lowest grades, most typically one grade below classroom grade for the middle grades, and most typically two grades (sometimes more) below grade level at the fifth and sixth classroom grades. One possible explanation for this pattern would be a longitudinal process where individual LEP students in bilingual projects tend to fall further behind in English Language Arts skills as they advance through the grades. However, since the data for this table are cross-sectional, rather than longitudinal, it should be emphasized that several key factors may be contributing to this pattern and need to be considered in the interpretation of these data. For example, to the extent that bilingual programs are appropriately exiting LEP children from the program into the regular classroom, so that only the

TABLE 6.2

NUMBER AND PERCENTAGE OF TEACHERS AT EACH CLASSROOM GRADE LEVEL BY THEIR STUDENTS' MODAL LEP GRADE LEVEL

Classroom Grade of Teachers	Modal LEP Grade Level														
	K		1		2		3		4		5		6		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
K	56	97	2	3	-	-	-	-	-	-	-	-	-	-	58
1	19	34	35	63	2	4	-	-	-	-	-	-	-	-	56
2	7	16	21	47	17	38	-	-	-	-	-	-	-	-	45
3	-	-	6	15	20	51	12	31	1		-	-	-	-	39
4	2	8	2	8	1	4	13	50	8	31	-	-	-	-	26
5	-	-	-	-	3	13	5	22	10	43	5	22	-	-	23
6	1	6	-	-	-	-	6	33	2	11	4	22	5	23	18
All Grades	85	32	66	25	43*	16	36	14	21	8	9	3	5	2	265*

*One teacher whose modal LEP students were at second grade did not have an assigned classroom grade, hence tables based on modal LEP grades will display data for one more teacher than tables based on assigned classroom grade.

least English proficient remain in the program, it is logical that there will be, by definition, low English Language Arts skills among the LEP children remaining. Furthermore, it must be remembered that recently enrolled LEP children often enter the program at upper grade levels, with little or no English skills. For example, an influx of immigrants/refugees will bring a high percentage of non-English speaking students, at all grade levels. This is true in Texas, California, and Washington, for example. Thus, it is conceivable to have some 6th grade children (e.g., much too old to be placed in kindergarten) function at the pre-K level, as was found in one 6th grade classroom.

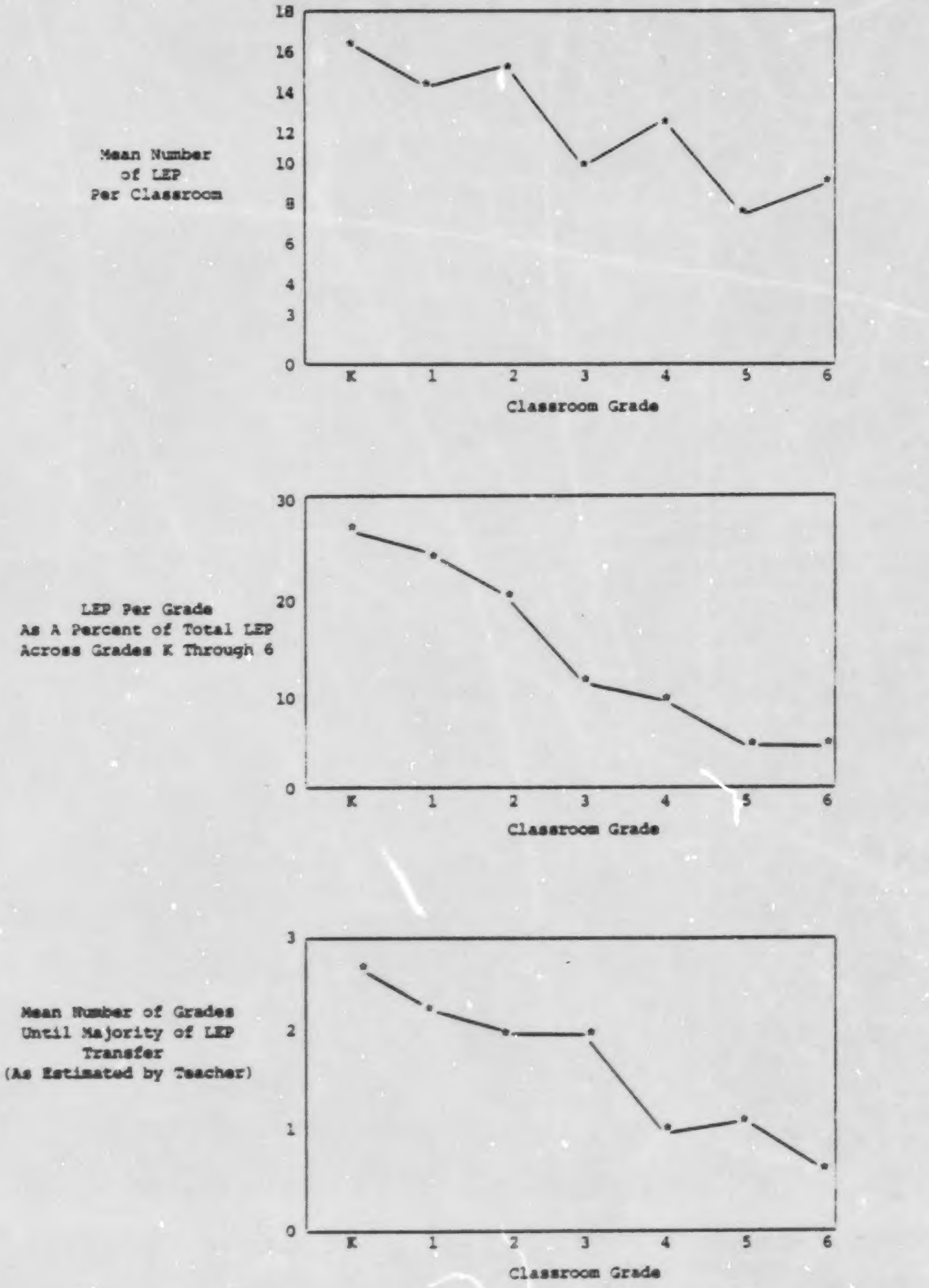
Figure 6.3 presents three graphs which provide further descriptive information about the distribution of LEP students across classroom grades. The top graph shows that the mean number of LEP children per class decreases with increasing classroom grade. The middle graph of Figure 6.3 shows that the percentage of LEP students in each grade as a function of the total number of LEP students across grades similarly decreases as grade level increases. Although these are not longitudinal data, they suggest the possibility that many of the children identified as LEP in early grades will no longer be identified as LEP in the later grades. It appears likely that most have transferred to regular classrooms, whether or not they are still considered LEP, as suggested by the bottom graph in Figure 6.3. This graph shows that bilingual education teachers estimate shorter time periods regarding when they expect most of their LEP to move to a regular classroom as classroom grade increases. The implication is that the majority of children identified as LEP in grades K through 2 move to the regular classroom in subsequent grades.

6.3 General Results by Classroom Grades

This Study examined two ways of assessing the degree to which the skills needed to function in all-English speaking classrooms are addressed. The first way is in terms of skills taught or covered at the assigned (classroom) grade level of students, in this case LEP students. The second way is in terms of skills taught or covered at the functional

FIGURE 6.3

MEAN NUMBER OF LEP PER CLASSROOM; LEP PER GRADE AS A PERCENTAGE
OF TOTAL LEP ACROSS GRADES K THROUGH 6; AND
MEAN NUMBER OF ESTIMATED GRADES UNTIL MAJORITY OF LEP TRANSFER, BY CLASSROOM GRADE



(modal LEP) grade of students. Each approach provides a somewhat different perspective. The results from the viewpoint of classroom grade are presented below.

6.3.1 Reading, Writing and Oral Language Composite Skills Taught By Classroom Grades

Table 6.3 presents component level data for the percent of reading, writing and oral language skills taught to modal LEP children at each skill level grade across actual classroom grade levels.* Several observations can be made from this table. As expected, the percentage of above classroom grade level skills addressed for a particular LSF component tends to be substantially less than the percentage of on-grade and below classroom grade level skills addressed. Generally, reading skills are covered more completely than writing skills, and both are covered substantially more completely than oral language skills. Figure 6.4 highlights this latter finding by showing the percentage of on-grade skills addressed for each component across assigned classroom grades. The percentage of on-grade reading skills addressed average in the high eighties; the percentage of on-grade writing skills addressed average in the low eighties; and the percentage of on-grade oral language skills average in the low sixties across classroom grades.

6.3.2 Mathematics, Social Studies, and Science Skills Taught

In addition to the teaching of specific language arts skills assessed by the CSI, teachers were asked whether they taught mathematics, social studies, and science to LEP children.** Figure 6.5 shows the percent of teachers at each classroom grade level who taught each of these subjects to their LEP children. On the average, about 80% of teachers covered these subject areas with their LEP children. In general, a smaller percentage of

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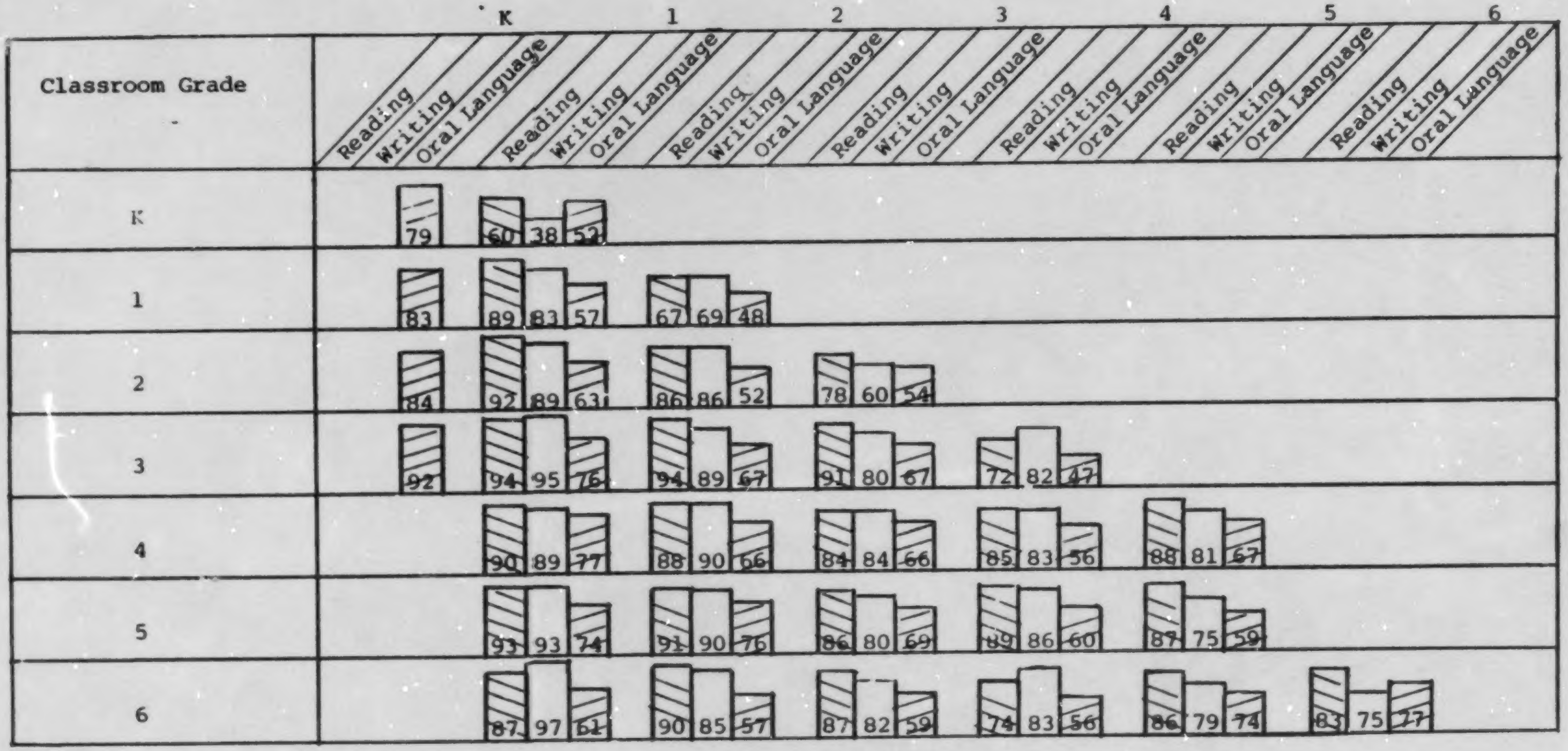
*Data based on the responses of five or fewer teachers are not presented in this table because they were considered psychometrically unreliable.

**This was asked only of classroom teachers, but not of resource teachers. See Chapter 4 for a discussion of resource teacher characteristics.

TABLE 6.3

PERCENTAGE OF READING, WRITING, AND ORAL LANGUAGE COMPONENT SKILLS* TAUGHT TO MODAL LEP CHILDREN AT EACH SKILL LEVEL GRADE BY ACTUAL CLASSROOM GRADE LEVEL OF TEACHERS



Skill Level Grade

Classroom Grade	K			1			2			3			4			5			6		
	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language
K			79	60	38	52															
1			83	89	83	57	67	69	48												
2			84	92	89	63	86	86	52	78	60	54									
3			92	94	95	76	94	89	67	91	80	67	72	82	47						
4				90	89	77	88	90	66	84	84	66	85	83	56	88	81	67			
5				93	93	74	91	90	76	86	80	69	89	86	60	87	75	59			
6				87	97	61	90	85	57	87	82	59	74	83	56	86	79	74	83	75	77

*The percentages here are of those skills included in the CSI for particular grades.

FIGURE 6.4

PERCENTAGE OF ON-GRADE READING, WRITING, AND ORAL LANGUAGE COMPONENT SKILLS TAUGHT TO MODAL LEP CHILDREN-ACROSS ASSIGNED CLASSROOM GRADES

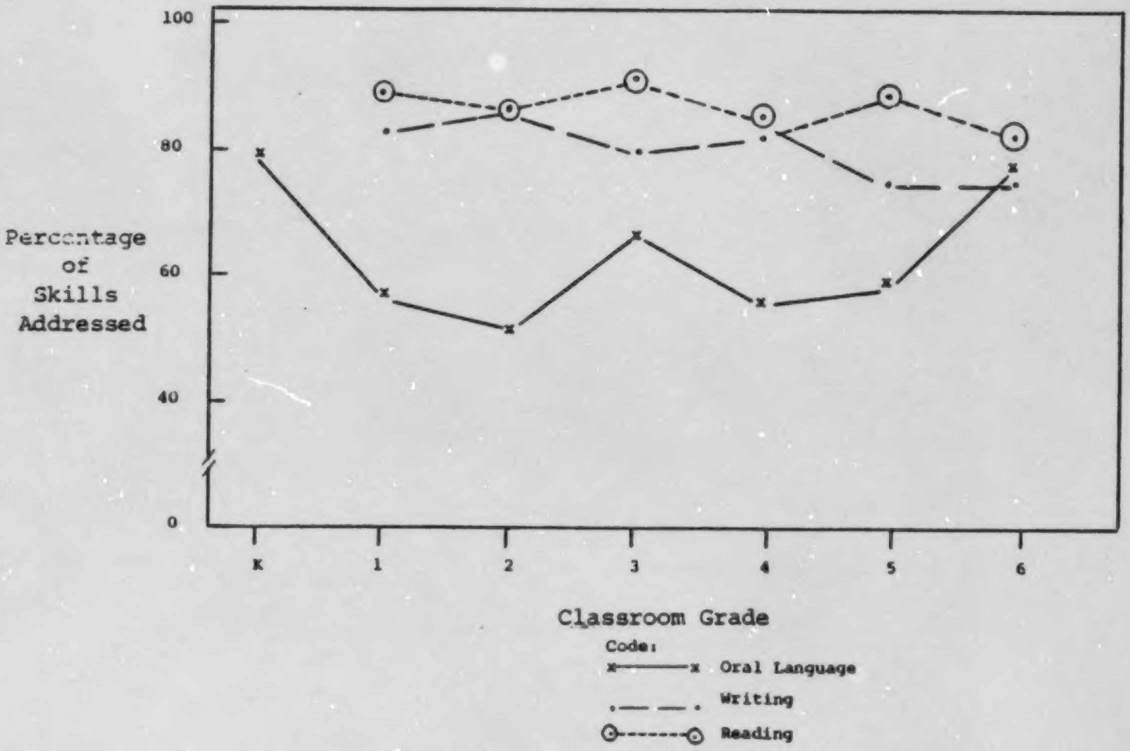
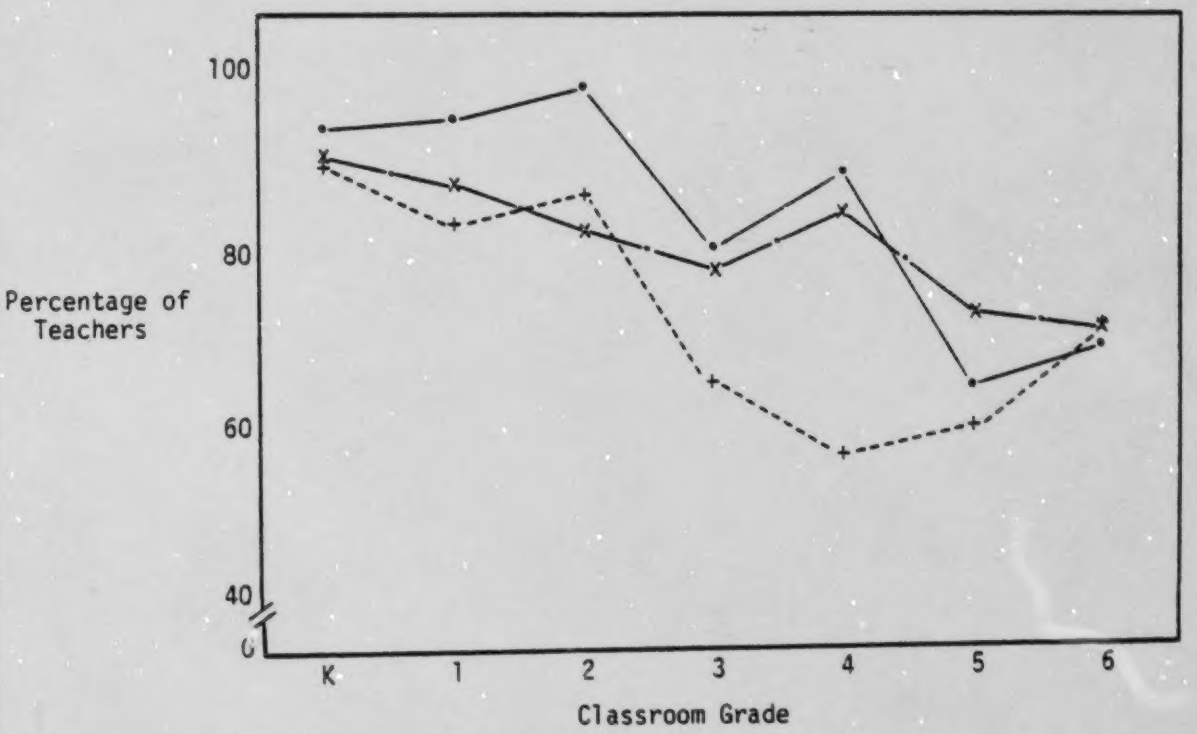


FIGURE 6.5

PERCENTAGE OF TEACHERS AT EACH CLASSROOM GRADE WHO TEACH MATHEMATICS, SOCIAL STUDIES, OR SCIENCE TO THEIR LEP STUDENTS



Subject

.________. Mathematics

x—·——x Social Studies

+------+ Science

upper elementary grade teachers taught these subjects to LEP children than did teachers in the lower elementary grades. The decreases in percent of teachers between grades K-2 and grades 3-6 teaching science (24%) and mathematics (20%) are about twice as much as the decrease in the percentage of teachers teaching social studies (11%). Except for Grades 5 and 6, a larger percentage of teachers teach mathematics to LEP students than teach social studies and science. This suggests that projects are following the typical pattern of teaching more mathematics in the early grades than science and social studies. An almost equal percentage of teachers teach social studies and science to LEP students in the lower elementary grades (K-2), whereas a smaller percentage of teachers teach science to LEP students in the upper elementary grades (3 to 5) than social studies.

Teachers were asked whether the objectives they were using with LEP students in each of these subjects differed from those they would use with English proficient students. A sizeable proportion of teachers (32% overall) indicated they had different objectives for LEP students in each of these subjects. For mathematics and science, the percent of teachers indicating different objectives for LEP students dropped substantially between lower grades, K to 2, and upper grades, 3 to 6 (37% versus 25% for mathematics and 40% versus 23% for science). On the other hand, there was no real difference between lower and upper grades for social studies (37% versus 36%). For those teachers indicating that the relative comprehensiveness of objectives differed for LEP students, teachers were close to equally split as to how comprehensive the objectives were for LEP students in the subjects of social studies (47% more comprehensive than those for non-LEP and 53% less, N = 32) and science (56% more and 44% less, N = 18), whereas for mathematics, substantially more teachers leaned toward comprehensive objectives (65% more and 35% less, N = 26). For those teachers indicating that teaching pace differed for LEP and English proficient students, respondents overwhelmingly indicated a slower pace for LEP students (97% in mathematics, N = 30; 95% in social studies, N = 22; and 100% in science, N = 23).

Teachers also indicated that, for mathematics and science, they used their students' native language rather than English (100% for mathematics, N = 16 and 94% for science, N = 16). In the case of social studies, 71% of teachers used the students' native language, while 29% used English (N = 14).

The general picture that emerges from these data is that a sizeable portion of teachers cover content skills in mathematics, science, and social studies with their LEP students. Teachers frequently modify their objectives and use a slower pace and the native language to assist the LEP students. However, a smaller percentage of teachers teach these subject area skills in upper elementary grades than in the lower grades, particularly mathematics and science. There may be several reasons for this latter phenomenon. It may reflect a move toward a more remediation oriented approach with students who have not been able (for whatever reasons) to achieve sufficient English language arts skills for exit, despite extended participation in the program; it may reflect the use of a more focused (on English language arts skills per se) approach toward new LEP students who come into the program in upper elementary grades; or it may reflect the greater use of the pull-out approach with upper elementary grades such that these subjects are more often covered only in the regular classrooms. The exact explanation would be more likely with a longitudinal study, which would include individual students over time, which this Study did not obtain.

6.3.3 Other Needs Addressed

Teachers were asked about any other special needs that limited English proficient students might have apart from their need for English proficiency. Sixty-six percent of the teachers indicated that their LEP students had such special needs; of these, 96% gave specific responses regarding what these needs were, and 87% gave specific ways in which they were addressing these needs.

The main categories of responses regarding other needs of LEP students and ways in which teachers address these needs are presented in Table 6.4. Over 90% of the perceived needs fell into two categories: academic/cognitive needs (29%) and social/interpersonal needs (62%). Most

(70%) of the perceived ways these needs were addressed (solutions) also fell into two categories: academic/cognitive solutions (28%) and social/interpersonal solutions (43%).

TABLE 6.4

SPECIAL NEEDS OF LEP STUDENTS IN ADDITION TO ENGLISH PROFICIENCY AND WAYS IN WHICH TEACHERS ADDRESS THESE NEEDS

Other Special Needs of LEP Students
(N = 168 Responses)

Academic/Cognitive Needs	% of Responses	Social/Interpersonal Needs	% of Responses
Native language skills	10.1	Positive self-concept	27.4
Cognitive skills	7.7	Cultural adjustment/ acceptance behaviors	17.9
Subject matter knowledge	4.2	U.S. cultural knowledge	6.5
Re-learning native language/culture	4.2	Parental support	6.0
Health/nutrition education	2.4	Group interaction	4.2
Total	28.6	Total	61.9

* * *

Specific Ways In Which Teachers Are Addressing Needs
(N = 152 Responses)

Academic/Cognitive Needs	% of Responses	Social/Interpersonal Needs	% of Responses
Native language instruction	9.2	Explanation of cultural differences/multicultural activities	21.7
Individualized instruction	8.6	Activities to enhance self-concept	8.6
Instruction geared to student pace	6.6	Effective communication with parents	6.6
Arrange medical treatment/ Provide health education	3.3	Positive feedback/ encouragement	5.9
Total	27.6	Total	42.8

6.4 Results by Functional (Modal LEP) Grades

The preceding subsections assessed skills addressed in terms of LEPs' classroom grades. The next series of subsections will consider these and other data from the perspective of LEP students' functional (modal) grade.

6.4.1 Reading, Writing and Oral Language Composite Skills Taught Per Modal LEP Grade

Another way to present the reading, writing, and oral language component data is in terms of the percentage of above grade, on-grade, and below grade skills taught by modal LEP grade level. This is shown in Table 6.5 The percentages of on-modal-grade level skills addressed (Figure 6.6) are slightly higher than the percentages of on-classroom-grade level skills addressed (Figure 6.4). This confirms the expectation that teachers emphasize skill levels at the modal LEP grade level, rather than at the classroom grade level.

The percentage of +1 grade, on-grade, -1 grade and -2 grade reading, writing and oral language skills addressed by modal LEP grade is shown in Figure 6.7. Generally, the data for each of these skill components are ordered such that -2 grade skills (skills two grades below where the teacher believes the modal LEP student are functioning in terms of English Language Arts) are most completely addressed, -1 grade skills next most completely addressed, on grade skills next, and +1 grade skills least completely addressed. That is, overall, teachers address more LSF skills one or two grades below the modal LEP grade than they do on-modal-LEP-grade. This pattern is strongest for oral language skills, next strongest for writing skills, and least dramatic for reading skills.

One important observation from Figure 6.7 is that the pattern of increasing percentage of +1 grade, on-grade, -1 grade or -2 grades skills addressed, across all grades and for all three skill components, suggests that the CSI has performed very well in discriminating between skills which are addressed and those which are not.*

---

*Skills were intermingled by LSF sub-area or sometimes randomized in such a way that it was unlikely that teachers "saw through" the skill grading system and merely responded accordingly.

TABLE 6.5

PERCENTAGE OF ABOVE GRADE, ON-GRADE, AND BELOW GRADE READING, WRITING, AND ORAL LANGUAGE COMPONENT SKILLS TAUGHT BY MODAL LEP GRADE LEVEL

Grade Level of Skills Taught	Modal LEP Grade Level K			1			2			3			4			5			6			
	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	Reading	Writing	Oral Language	
+1 Grade Skills	67	50	54	74	76	48	84	68	61	73	82	47	90	80	69	68	45	43				
On Grade Skills			80	91	87	60	90	86	66	89	80	61	92	87	68	78	64	43	88	83	84	
-1 Grade Skills						85	93	95	74	90	88	63	87	90	77	70	75	44	91	89	83	
-2 Grade Skills									88	91	90	70	89	93	79	74	76	48	94	92	87	
Number of Teachers	85			66			44			36			21			9			5			266

FIGURE 6.6

PERCENTAGE OF ON-GRADE READING, WRITING, AND ORAL LANGUAGE SKILLS TAUGHT TO MODAL LEP CHILDREN ACROSS MODAL LEP GRADES

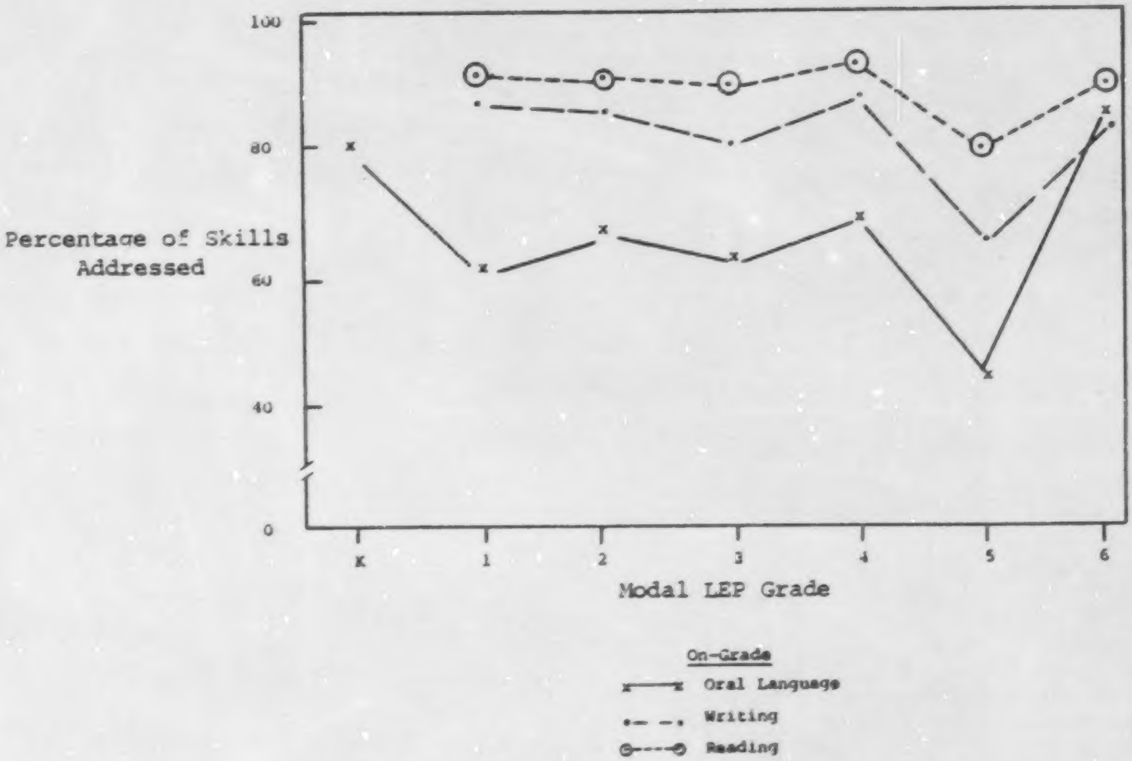


FIGURE 6.7

PERCENTAGE OF SKILLS ADDRESSED +1 GRADE, ON-GRADE, -1 GRADE, AND -2 GRADES FOR READING, WRITING & ORAL LANGUAGE COMPONENTS

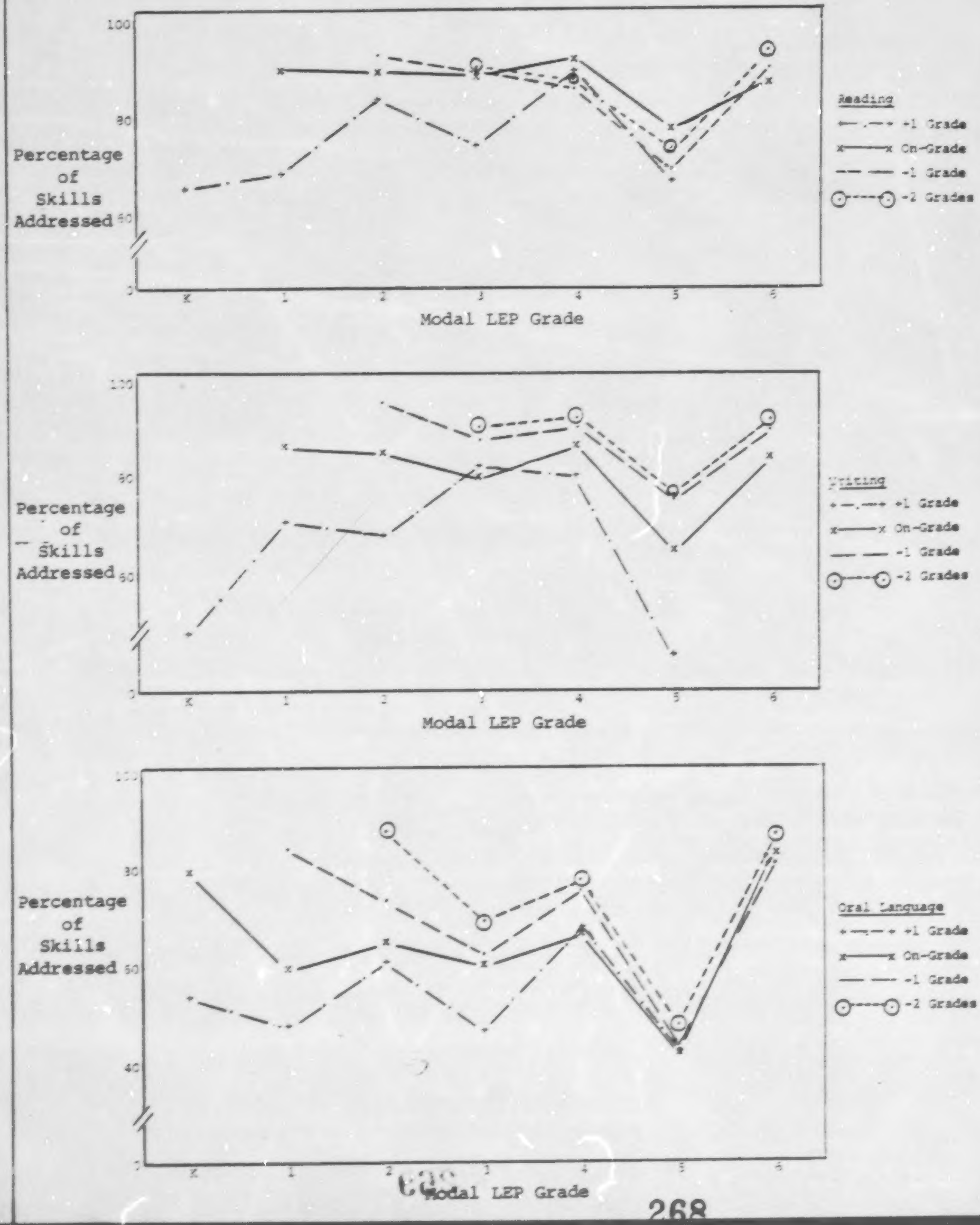
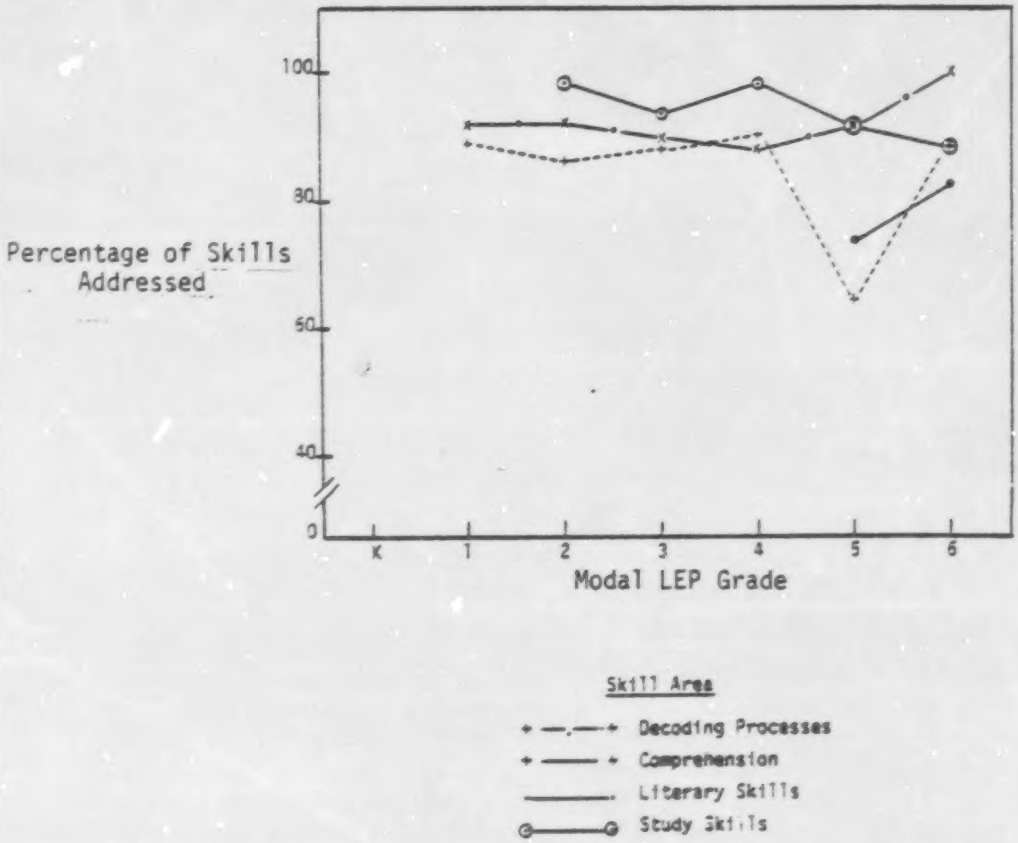


FIGURE 6.8

PERCENTAGE OF ON-GRADE READING SKILLS TAUGHT AT EACH MODAL LEP GRADE



6.4.2 Reading Skill Areas

Figure 6.8 presents the percentage of on-grade skills taught at each modal LEP grade for each of the four reading skill areas included on the CSI. The study skills area, generally, has the highest percentage of on-grade skills taught across all modal LEP grades. Except for Grade 5, the percentage of on-grade skills was essentially the same across all modal grade levels for Study Skills, Comprehension, and Decoding Processes. On-grade Literacy Skills are only appropriate for 5th and 6th grades, and no pattern can be determined from only these two data points.

Figure 6.9 shows each of the reading skill areas in terms of the percentage of skills covered above grade level (+1 grade), on-grade level, and below grade level (-1 and -2 grades), for each modal LEP grade. The percentage of on-grade Decoding Processes skills covered tends to be greater than above or below grade skills. For Comprehension and Study Skills, the percentage of above grade skills covered tends to be less than the percentage of on-grade and below grade skills covered.

6.4.3 Writing Skill Areas

Figure 6.10 presents the percentage of on-grade skills taught at each modal grade level for each of the six writing skill areas included on the CSI. Spelling, Handwriting and Mechanics are presented separately from Language, General Discourse, and Discourse Products to aid visual interpretation, and also because the former group seems to involve more mechanical/rote skills than the latter group. Empirically, at each modal LEP grade, the percentages of on-grade skills taught in each of the areas in the first group are greater than the percentages of on-grade skills taught in the areas included in the second group.

The percentages of Handwriting and Mechanics skills taught is consistently high over all modal LEP grade levels, while the percentages of skills taught in the other areas vary considerably. This is confirmed by the data displayed in Figures 6.11 and 6.12 which present the percentages of above grade, on-grade, and below grade skills which are taught at each

FIGURE 6.9
PERCENTAGE OF DECODING PROCESSES SKILLS, COMPREHENSION SKILLS,
LITERARY SKILLS AND STUDY SKILLS TAUGHT ABOVE, ON AND BELOW MODAL LEP GRADE

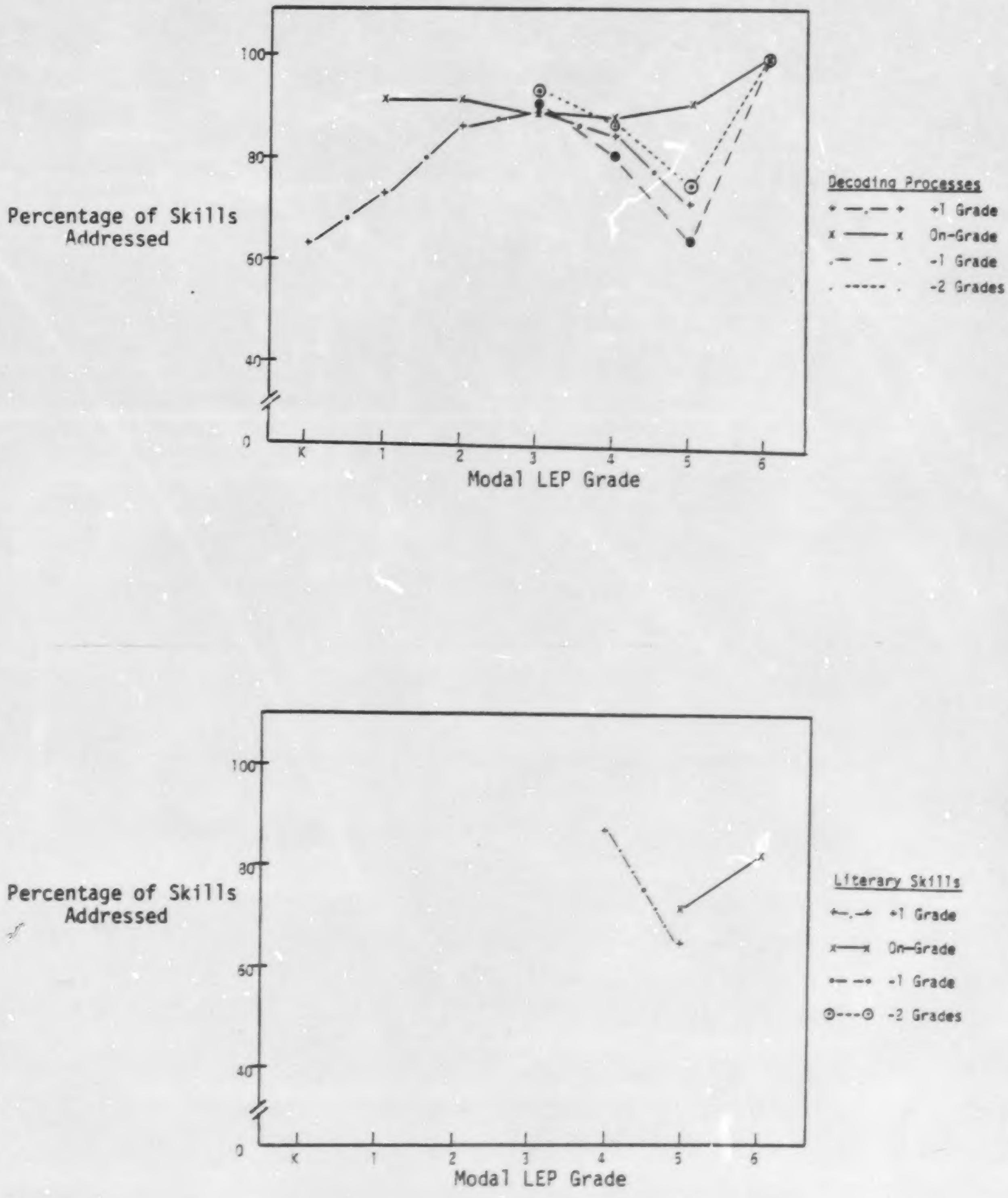
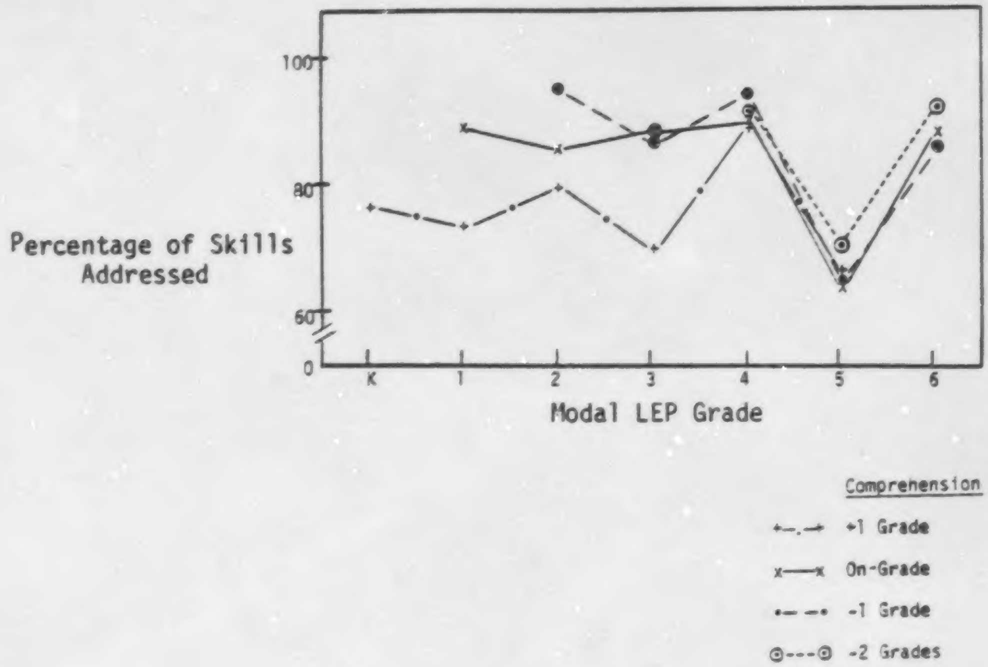


FIGURE 6.9 (continued)



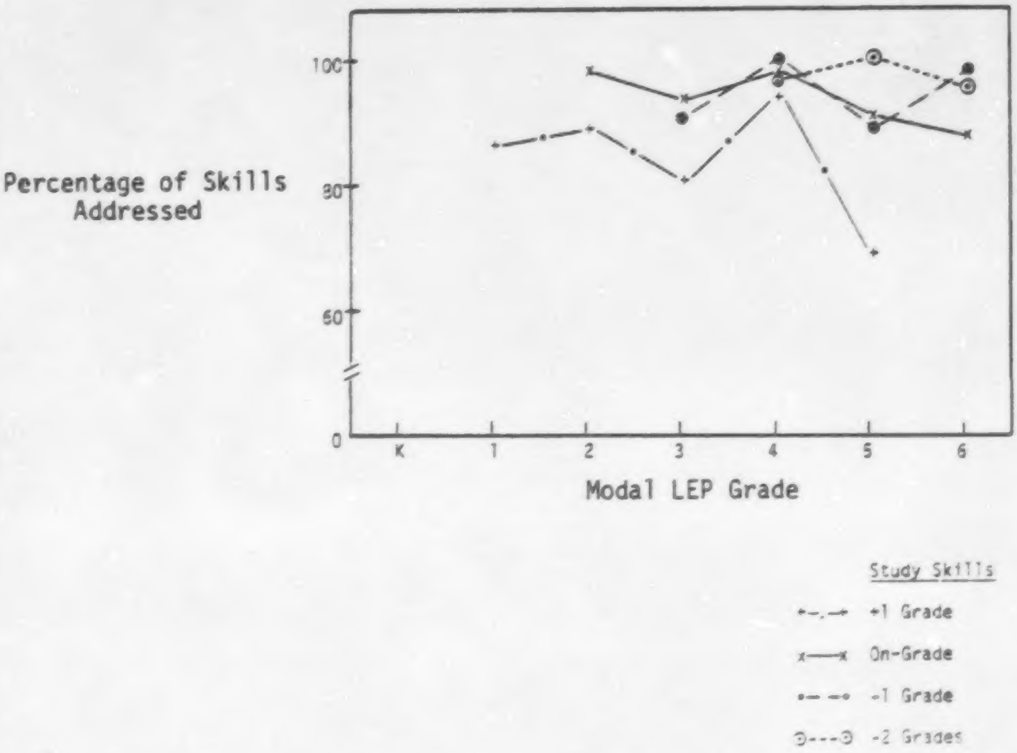


FIGURE 6.10

PERCENTAGE OF ON-GRADE WRITING SKILLS TAUGHT AT EACH MODAL LEP GRADE

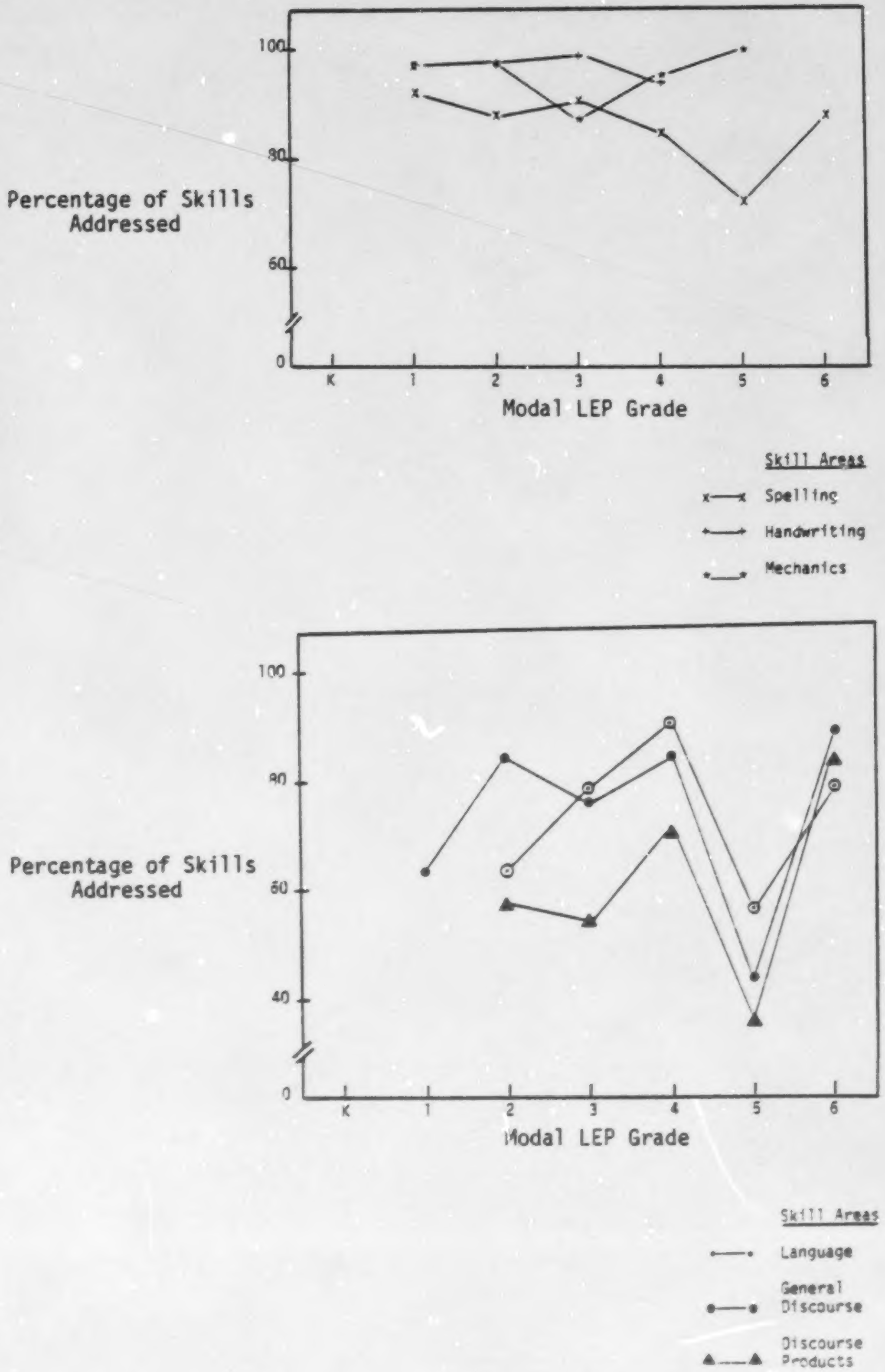


FIGURE 6.11
PERCENTAGE OF SPELLING, HANDWRITING, AND MECHANIC SKILLS
TAUGHT ABOVE, ON AND BELOW MODAL LEP GRADE

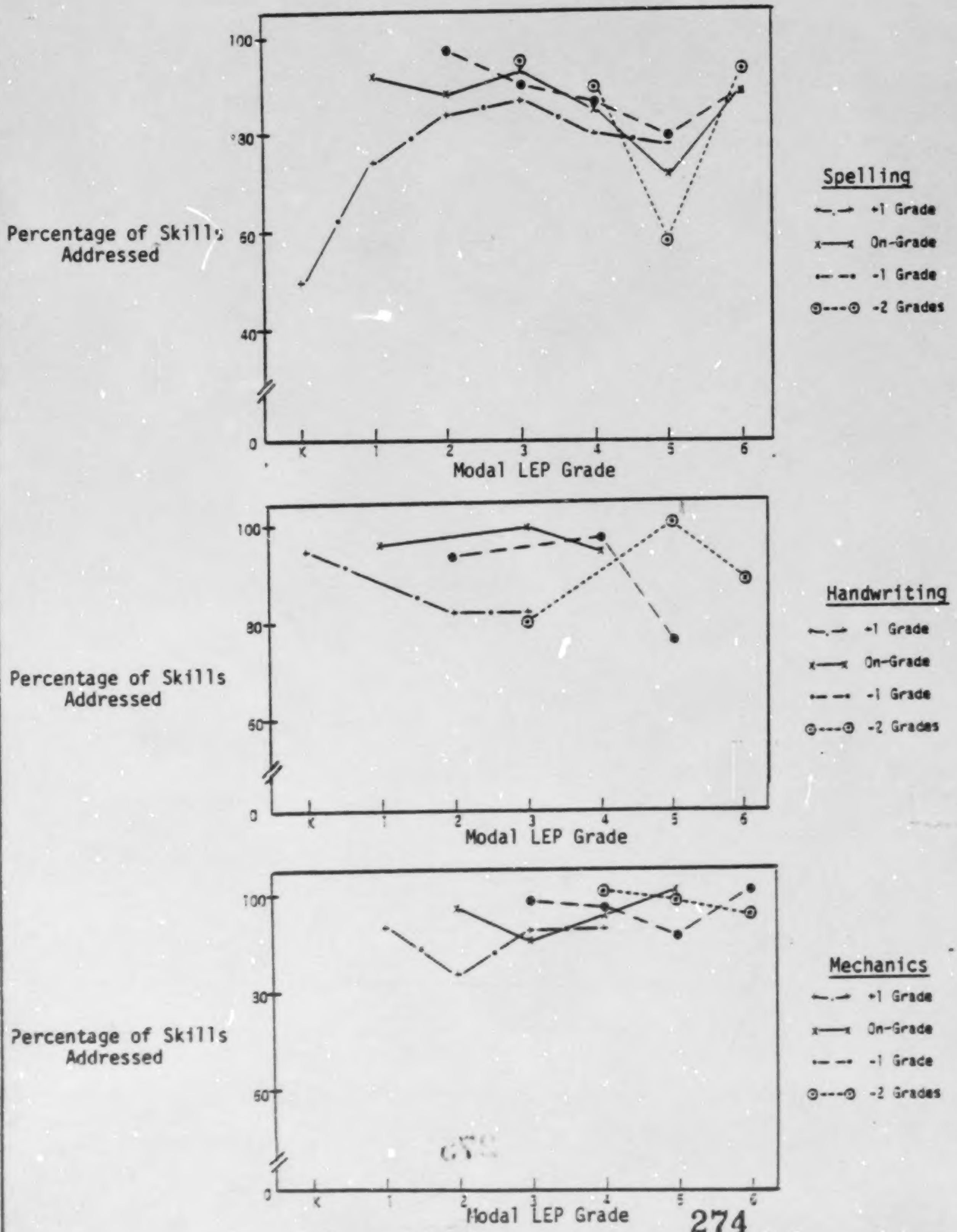
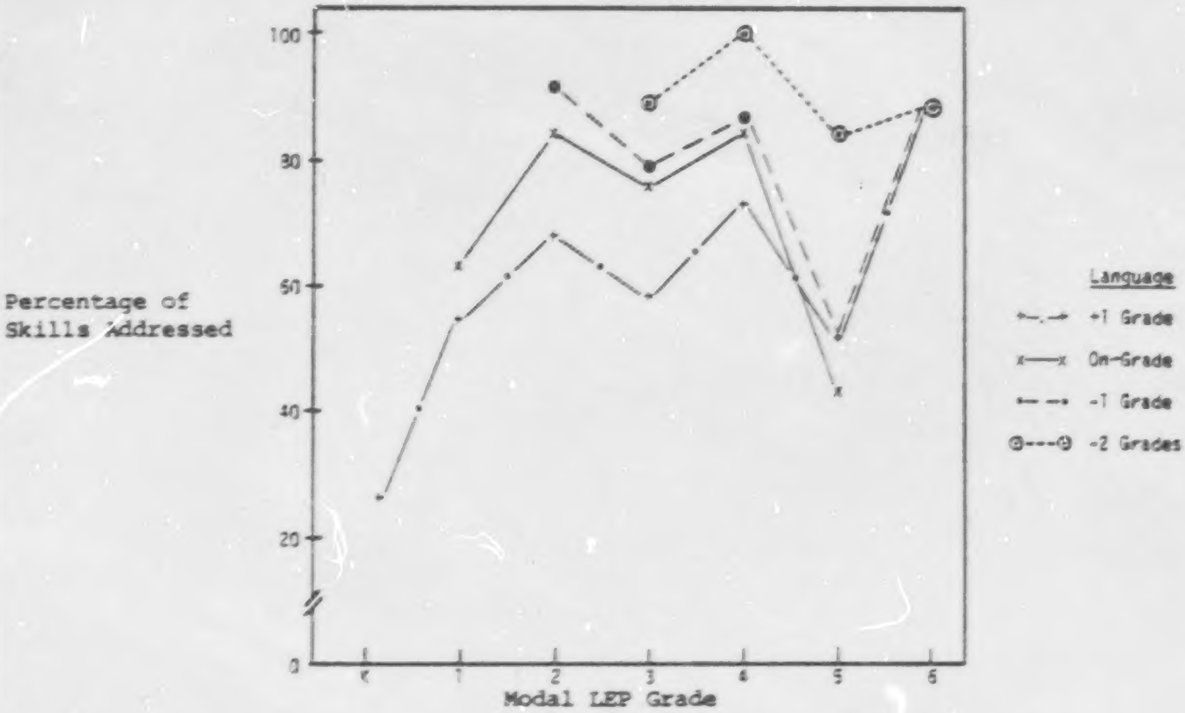


FIGURE 6.12

PERCENTAGE OF LANGUAGE, GENERAL DISCOURSE, AND DISCOURSE PRODUCTS SKILLS TAUGHT ABOVE, ON, AND BELOW MODAL LEP GRADE



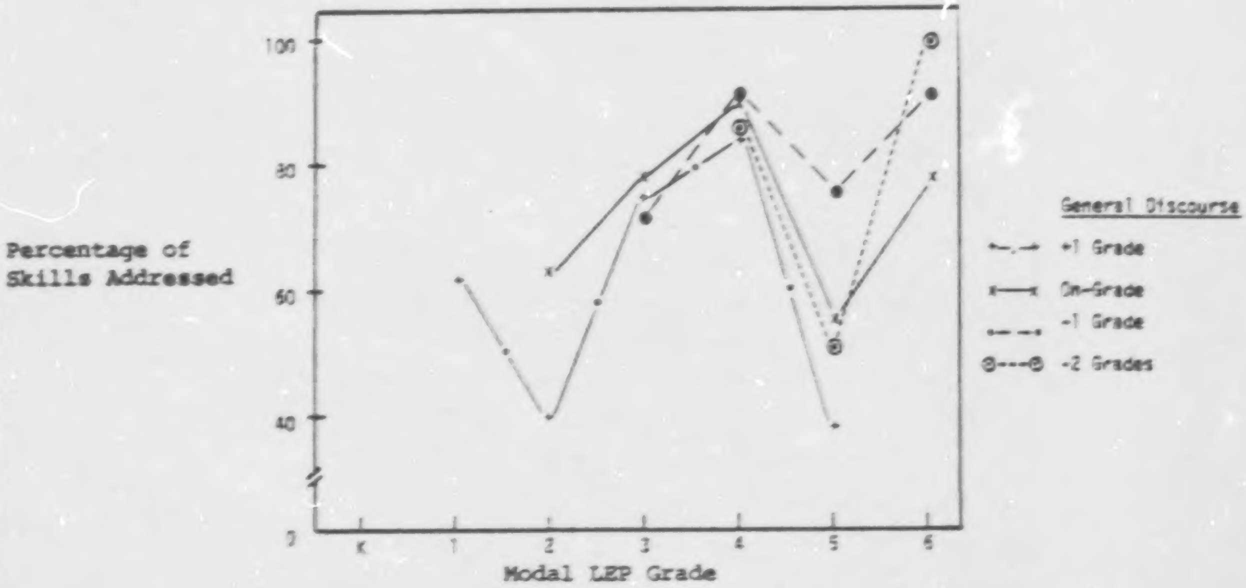
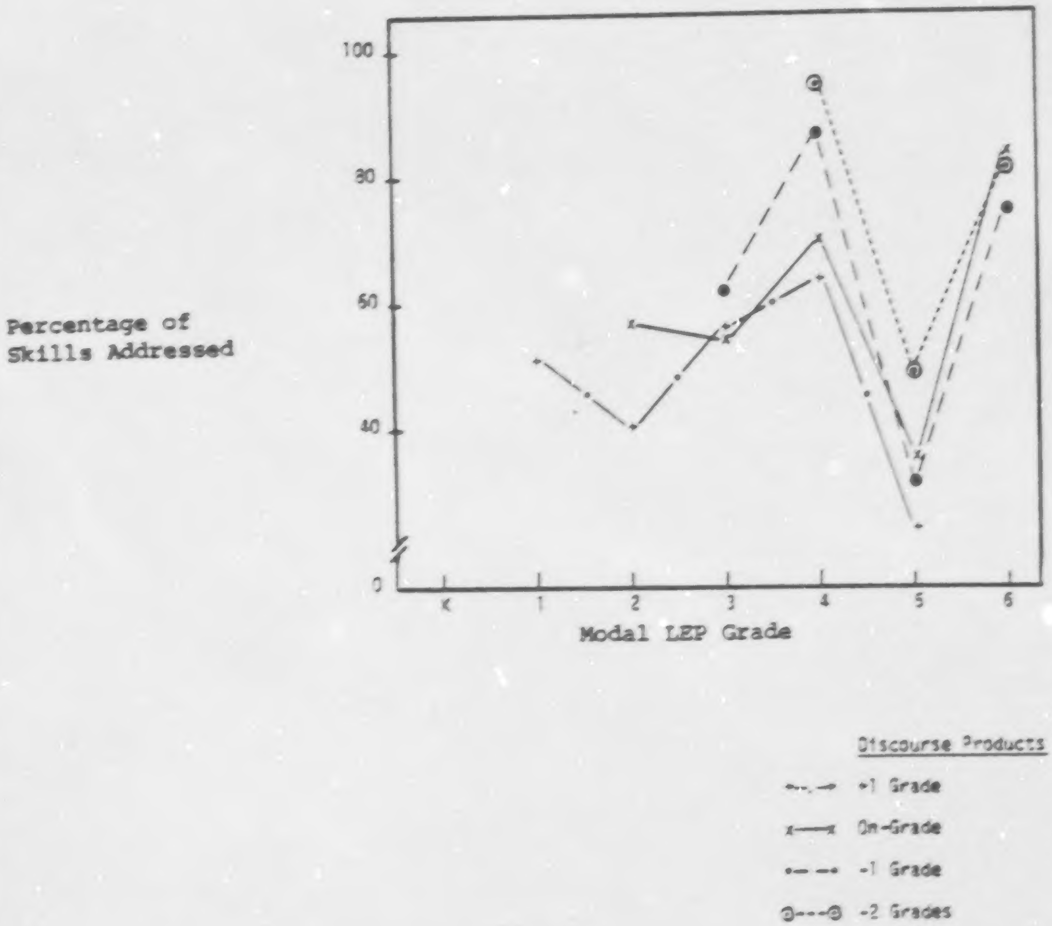


FIGURE 6.12 (continued)



modal LEP grade. The graph of the Language area data demonstrates a tendency for a larger percentage of skills two grades below modal LEP grade level to be taught, while the smallest percentages of skills taught are those above grade level. No other patterns seem to emerge from the data.

6.4.4 Oral Language Skill Areas

Figure 6.13 shows the percentage of on-grade skills taught at each modal grade level for each of these oral skill areas. These oral language area skills (based on the LSF framework) are Oral Vocabulary, Sentence Structure, and Language Use. (Four other sub-area measures of oral language involving constant grade or ungraded skill level are discussed at the end of this subsection.) A higher percentage of Language Use skills is taught than skills in the other two areas. In addition, in the lower elementary grades, a higher percentage of Sentence Structure skills is taught than Oral Vocabulary, while in the upper elementary grades, the reverse is true.

Figure 6.14 shows each of the three oral language skill areas in terms of percentage of skills covered below grade level, on-grade level, and above grade level for each modal LEP grade. No clear pattern emerges here except that for Oral Vocabulary and Sentence Structure, higher percentages of below grade level skills are taught than on-grade or below grade level skills.

The last set of data to be presented here include the four oral language variables that were assessed at the same skill grade level for all teachers: Common Pre-K Passive Vocabulary, Grade K Active Vocabulary, Grade 1 Active Vocabulary, and Classroom Interactions (Figure 6.15). Several observations can be made regarding these data. The percentage of skills taught in all these variables show a general tendency to increase and to peak somewhere in the middle grades and level off or become erratic in the upper grades. The common Pre-K Passive Vocabulary and the Grade K Active Vocabulary appear to peak in emphasis around second grade. This emphasis about two grades below modal LEP grade is consistent with what was found

FIGURE 6.13

PERCENTAGE OF ON-GRADE ORAL LANGUAGE SKILLS TAUGHT AT EACH MODAL LEP GRADE

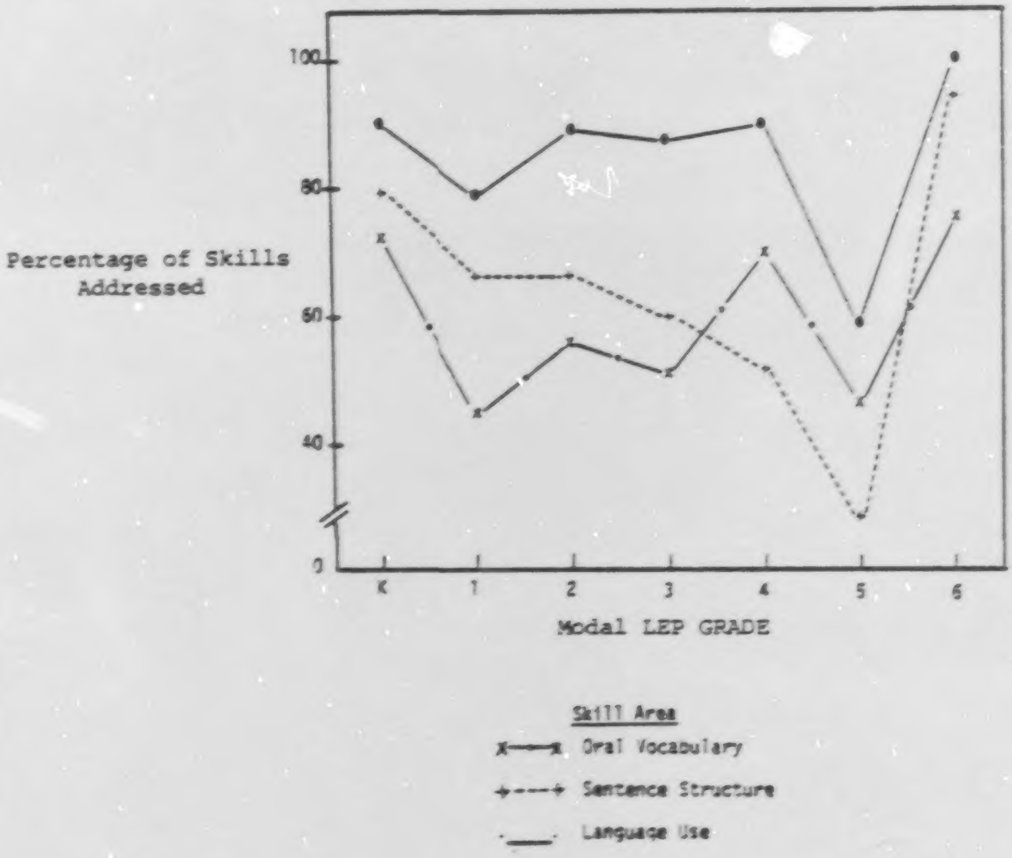


FIGURE 6.14

PERCENTAGE OF ORAL VOCABULARY, SENTENCE STRUCTURE AND LANGUAGE USE SKILLS TAUGHT ABOVE, ON AND BELOW MODAL LEP GRADE

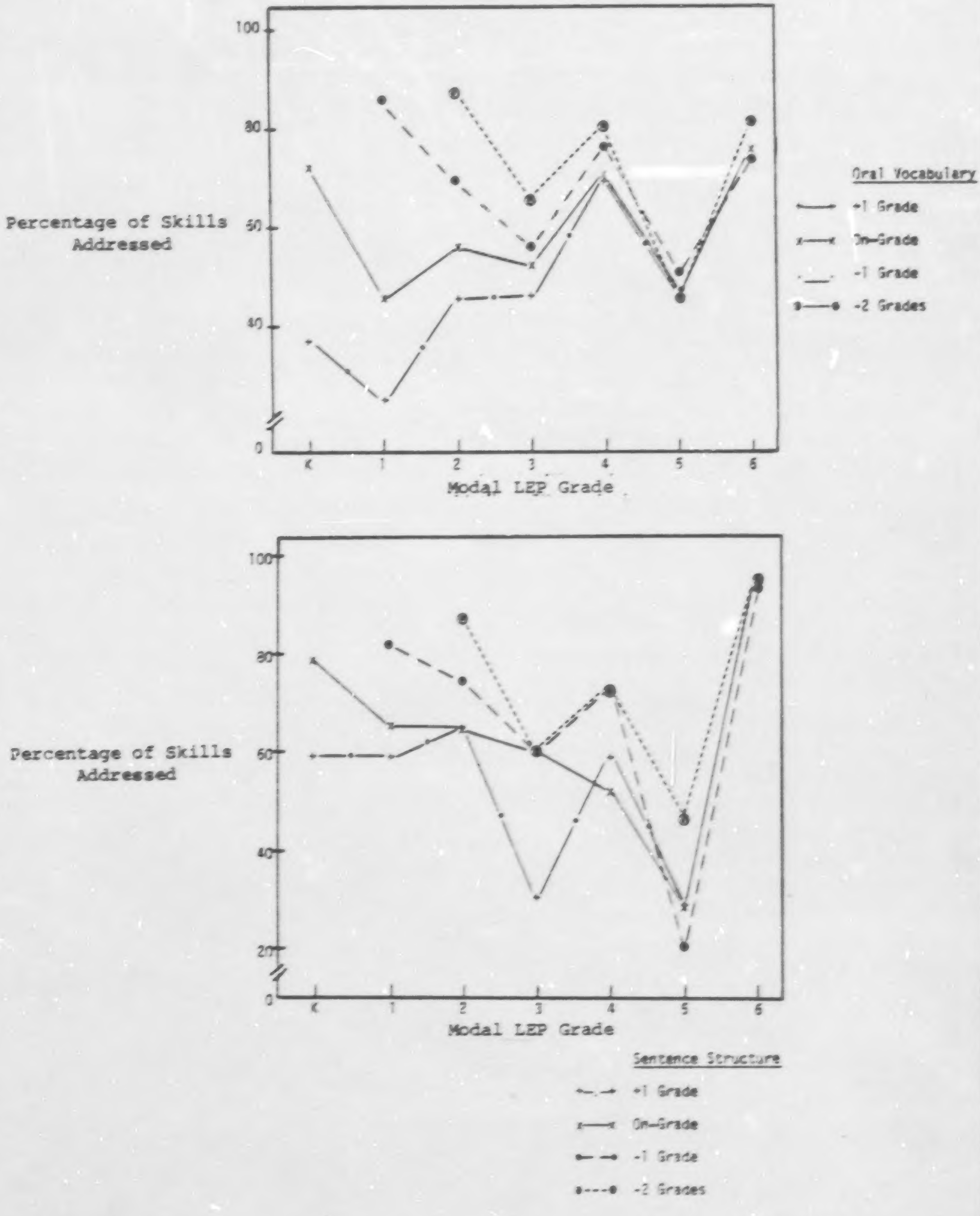


FIGURE 6.14 (continued)

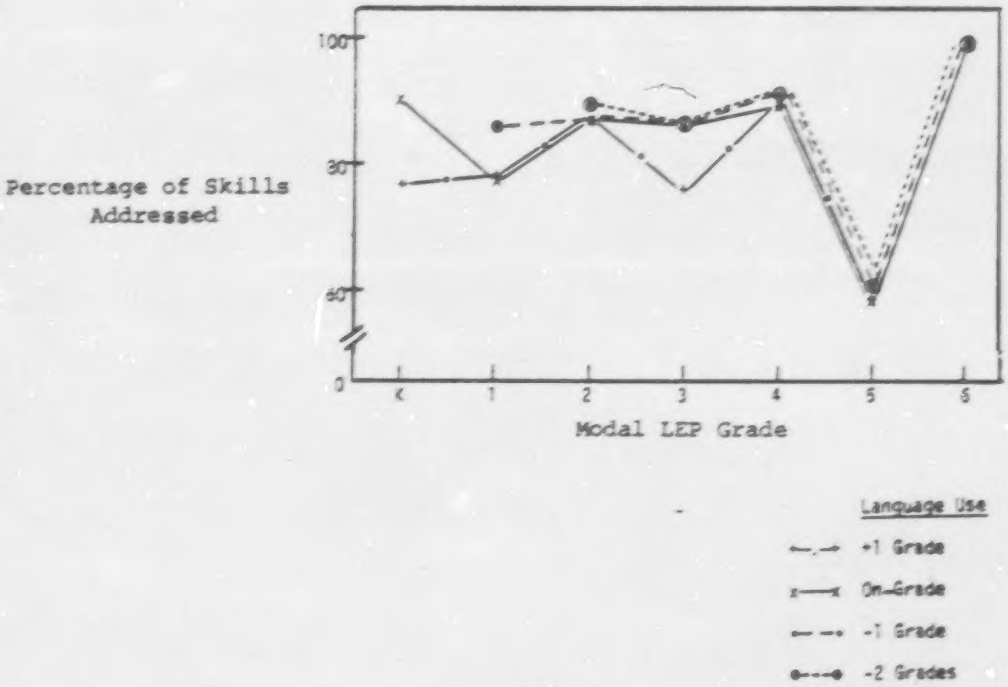
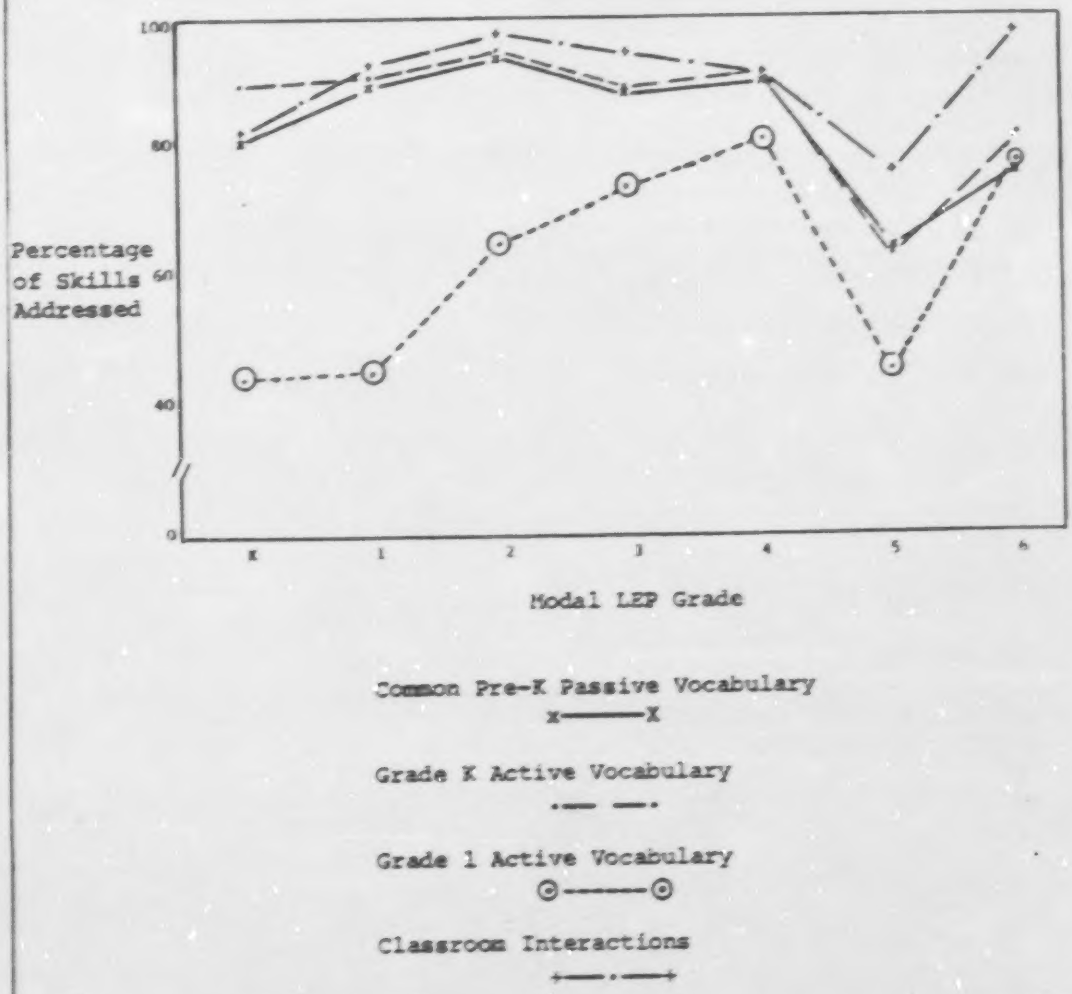


FIGURE 6.15

ORAL LANGUAGE SKILLS ASSESSED AT THE SAME SKILL GRADE LEVEL FOR ALL TEACHERS: PERCENTAGE OF SKILLS ADDRESSED BY MODAL LAP GRADE



for other oral language skills previously presented. The grade 1 Active Vocabulary words appear to peak in emphasis at fourth grade, which would be three grades below modal LEP grade for this oral language variable. The classroom interaction variable generally has the highest level of emphasis for this set of oral language variables, with perhaps a modest peak somewhere between the 1st and 3rd modal LEP grade. Again, these data give a relatively clear pattern suggesting good psychometric performance of these CSI variables.

6.5 Relationships Among Teacher and Classroom Characteristics and Skills Addressed

As discussed in Chapter 2, teachers within the bilingual education projects under study were randomly divided into equivalent samples. Teachers in one of these samples were interviewed to obtain information related to project characteristics. The data from that sample were presented in Chapter 4. The other teacher sample was utilized to obtain data for the Classroom Skills Inventory (CSI), additional teacher characteristics, and classroom characteristics that were considered potentially relevant to the skills addressed in bilingual classrooms. Some of the background information obtained on the CSI teachers is the same as the data obtained from the other teachers sampled; these data were analyzed in Chapter 2 as a basis for assessing the empirical comparability of the data. Teacher background and classroom data obtained from the other teacher sample was discussed in Chapter 4, and so, as a general rule, the essentially equivalent portions of the CSI teacher background data will not be presented here. Instead the focus on teacher and classroom background data obtained in CSI teacher sample will be limited to those data directly relevant to the issue of skills addressed by the CSI teacher sample. However, since the two teacher samples are essentially equivalent, inferences drawn from one sample should generally be interchangable with inferences drawn from the other sample.

6.5.1 Relationships Among Teacher and Classroom Characteristics

The focus in this subsection will be on relationships found among teacher and classroom characteristics in the CSI sample. Relationships between teacher characteristics or classroom characteristics and skill related variables will be found in the next subsection of this chapter.

Table 6.6 shows the extent of the relationship of teaching experience with other teacher or classroom characteristics (only significant relationships, $p < .05$, are shown). (Pearson product moment correlation coefficients were used here.) Two variables, total years of teaching experience and years of teaching experience at the current grade and school, are highly correlated ($r = .56$). Thus, they show very similar patterns of relationships with other background variables. Generally, the more experienced teachers tend to have greater monolingual education experience and more advanced degrees.*

Table 6.7 shows the significant (those with $p < .05$) relationships between each of four bilingual education or training variables and other teacher or classroom characteristics. Also shown are relationships between whether the teacher perceives he or she is in a program with greater bilingual emphasis (Type III, IV, or V rather than Type I or II) and other background variables. Finally, as a contrast, the relations between monolingual education teaching experience and other characteristics are also shown. Since a teacher could have a great deal of monolingual experience and still have substantial bilingual education training and experience, it does not automatically follow that monolingual training teaching experience would show opposite relationships to those involving bilingual education experience and training variables. However, that _is_ what the data show.

Generally, the four bilingual education training and experience variables show a highly correlated pattern. They also all tend to be associated with whether the teacher (or someone else in the classroom)

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*For example of the impact of the lack of qualified bilingual staff see Cases Nos. 6 and 19.

TABLE 6.6

CORRELATIONS OF YEARS OF TEACHING EXPERIENCE WITH OTHER TEACHER CHARACTERISTICS

1. Years of Teaching Experience

Correlated with:	r	p<
Years of teaching at grade and school	.56	.0001
Prior monolingual education experience	.54	.0001
More advanced degree	.34	.0001
Not teaching in other languages*	.31	.0001
Does not speak, read, or write in another language	.16	.008
Not currently receiving bilingual education training	.16	.008
Less total LEP in class	.15	.02
Less bilingual emphasis in program	.13	.04

2. Years of Teaching At Grade And School

Correlated with:	r	p<
Years of teaching experience	.56	.0001
Not teaching in other languages**	.30	.0001
No previous bilingual education experience	.27	.0001
More advanced degree	.18	.003
Not previously a ESL teacher	.18	.004
Less total LEP in class	.16	.008
Prior monolingual education experience	.15	.02
Not currently receiving bilingual education training	.13	.04

*All correlations in this group based on 261-265 teachers, except this variable (N = 170).

**All correlations in this group based on 261-264 teachers, except this variable (N = 169).

TABLE 6.7

CORRELATIONS OF BILINGUAL EDUCATION EXPERIENCE AND TRAINING WITH OTHER TEACHER CHARACTERISTICS

1. Previous Bilingual Education Teacher Experience Correlated with:	r	p<
Teaches in other languages	.36	.0001
Prior training in bilingual ed.	.33	.0001
Speaks, reads, or writes in other languages	.31	.0001
Prior experience as an ESL teacher	.31	.0001
Less years teaching at grade & school	.27	.0001
More LEP in class	.19	.0001
Currently receiving bilingual ed training	.18	.0001
No prior monolingual ed experience	.14	.03

2. Previous Experience As A ESL Teacher Correlated with:	r	p<
Prior experience as bilingual ed teacher	.31	.0001
Speaks, reads, or writes in other languages	.24	.0001
Prior bilingual ed training	.21	.0007
Less years at grade & school	.18	.004

3. Prior Bilingual Education Training Correlated with:	r	p<
Speaks, reads, or writes in other languages	.43	.0001
Prior bilingual ed teaching experience	.33	.0001
Current bilingual ed training	.27	.0001
Teaches in other Languages	.27	.0004
More LEP in class	.22	.0005
Prior ESL experience	.21	.0007
No monolingual ed experience	.18	.004
Lower classroom grade	.13	.04
Lower modal LEP (functional) grade	.13	.04

4. Currently Receiving Bilingual Education Trng. Correlated with:	r	p<
Teaches in other languages	.31	.0001
Prior bilingual training	.27	.0001
More LEP in class	.27	.0001
Speaks, reads, or writes in other languages	.25	.0001
No monolingual ed experience	.18	.003
Prior bilingual ed experience	.18	.004
Less yearu teaching	.16	.008
Less years at grade & school	.13	.04

5. In Program Type With Greater Bilingual Emphasis Correlated with:	r	p<
Teaches in other languages	.18	.02
Speaks, reads, or writes in other languages	.17	.004
Less LEP in class	.15	.02
No monolingual experience	.13	.04
Less years teaching experience	.13	.04

6. Previous Monolingual Ed.Teaching Experience Correlated with:	r	p<
Years teaching experience	.54	.0001
Does not speak, read, or write other languages	.24	.0001
More Advanced degree	.20	.0009
Less often teachers in other languages	.19	.01
Not currently receiving bilingual ed training	.18	.003
No previous bilingual ed training	.18	.004
Less total LEP	.15	.01
More years at grade and school	.15	.02
No previous bilingual ed experience	.14	.03
In a program with less bilingual emphasis	.13	.04

teaches in other languages, has competence in other languages, has fewer years teaching, has fewer years in grade and school, has more LEP in class, and has no prior monolingual education experience. However, program emphasis did not relate significantly to any of the bilingual education training or experience variables. The variables of previous monolingual education tended to generally reflect opposite relationships to those of the bilingual education indicators, and were also associated with more advanced academic degrees.

6.5.2 Relation of Teacher and Classroom Background Characteristics to Needs and Skills Addressed

Table 6.8 summarizes the statistically significant (and some of borderline significance) correlations between teacher or classroom background characteristics and the skills addressed or special needs perceived with LEP students in bilingual classrooms.

It should be remembered that some of these correlations are based on the full teacher sample; thus, relatively low correlations can be statistically significant. In other cases the sample sizes are considerably less (e.g., for 5th and 6th grade reading, writing and oral language skills), so that it takes a fairly large correlation to reach statistical significance. Thus, even though the probability standard is the same ($p < .05$) for all correlations reported as statist cally significant, it is much more likely that statistically significant relationships will be found in the larger samples. Conversely, it is much more likely that significant relationships will be missed in the smaller samples which would otherwise be found if sample sizes were larger.

The first three teacher background variables presented in Table 6.8 are: total years of teaching, number of years teaching at the current grade and school, and number of years of previous experience teaching in a monolingual education classroom. Years of previous monolingual education experience had no relationship to skills taught in the classroom nor to the perception of LEP students special needs. Total years of classroom teaching related only to less coverage of classroom interaction skills

TABLE 6.8

CORRELATIONS BETWEEN TEACHER CLASSROOM CHARACTERISTICS AND SKILLS ADDRESSED IN BILINGUAL CLASSROOMS

	r	p<
1. Years Teaching		
Less classroom interaction	.15	.02
2. Years Teaching in Grade School		
3rd grade writing	.25	.009
Less classroom interaction	.22	.0003
Perceive no additional LEP special needs	.14	.02
Less likely to teach mathematics to LEP	.13	.04
3. Previous Monolingual Education Experience		
No significant correlations		
4. Prior Bilingual Education Experience		
Perceive additional LEP special needs	.16	.01
More likely to teach social studies to LEP	.13	.03
5. Previous ESL Experience		
5th grade oral language skills	.49	.004
3rd grade oral language skills	.28	.004
2nd grade oral language skills*	.13	.09
6. Advanced Degree		
3rd grade reading skills	.19	.05
1st grade reading skills	.17	.01
3rd grade writing skills*	.18	.06
Common 1st grade passive oral vocabulary skills*	.12	.06

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*Correlations with only borderline ($.05 < p < .10$) statistical significance; included because they seem to relate to a pattern in the statistically significant ($p < .05$) correlations.

TABLE 6.8 (Continued)

	r	p<
7. Prior Bilingual Education Training		
3rd grade oral language skills	.20	.04
Perceive additional LEP special needs	.16	.007
More likely to teach social studies to LEP	.15	.01
1st grade passive oral vocabulary skills	.15	.02
Kindergarten passive oral vocabulary skills	.13	.03
Less 1st grade writing skills	.13	.05
Classroom interaction skills	.12	.05
4th grade reading skills*	.20	.10
Less 1st grade reading skills*	.11	.09
Common pre-K active vocabulary*	.10	.10
8. Current Bilingual Education Training		
6th grade writing skills	.57	.03
5th grade reading skills	.37	.03
4th grade reading skills	.27	.02
More likely to teach social studies to LEP	.17	.005
More likely to teach science to LEP	.15	.01
More likely to teach mathematics to LEP	.15	.02
5th grade writing skills*	.29	.09
9. Speaks, Reads, or Writes in Other Languages		
Perceive additional LEP special needs	.20	.001
2nd grade reading skills	.15	.05
More likely to teach social studies to LEP	.15	.02
5th grade oral language skills*	.30	.08
1st grades reading skills*	.11	.09
10. Teaching in Other Languages		
6th grade oral language skills	.68	.03
5th grade oral language skills	.48	.02
More likely to teach social studies to LEP	.26	.0006
6th grade writing skills*	.58	.08
2nd grade oral language skills*	.17	.09
Classroom interaction skills*	.13	.09

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*Correlations with only borderline ($.05 < p < .10$) statistical significance; included because they seem to relate to a pattern in the statistically significant ($p < .05$) correlations.

which has to do with communication between the teacher and students. Number of years teaching in the grade and skill correlated positively with 3rd grade writing skills (possibly spurious) and negatively with classroom interactions, perceiving LEP special needs, and teaching mathematics to LEP.

The next two variables in Table 6.8 relate to previous bilingual education experience in general and previous experience specifically as an ESL teacher. Previous bilingual education experience correlated positively with only two variables: perception of additional LEP special needs and a greater likelihood to teach social studies to LEP students. Previous ESL teaching experience showed a general tendency to be positively related to teaching of oral language skills. Advanced degree training had a positive relation to early grade reading, writing, and passive vocabulary skills training for LEP. Otherwise, having an advanced degree did not relate to teaching of skills or perception of special needs.

Prior and current bilingual education training (as opposed to experience) both had a fair number of significant correlations with teaching of various skills to LEP and perception of special needs. However, the pattern of relationships for current bilingual education training is clearer than for prior bilingual education training. Current bilingual training tends to relate positively to teaching upper elementary grade level reading and writing skills and teaching all three of the subject area skills of social studies, science, and mathematics to LEP students. Prior bilingual education training has the greatest tendency to relate positively to lower elementary oral language skills (i.e., 3rd grade oral language, 1st grade passive oral vocabulary, K grade passive oral vocabulary, classroom interaction skills, and pre-K active vocabulary). Prior bilingual education experience also related positively to perceived LEP student special needs, teaching social studies, and 4th grade reading skills. On the other hand, for some reason prior bilingual education training correlates with less 1st grade writing skills and less 1st grade reading skills. It would appear that in the earliest elementary grades, teachers with prior bilingual education training emphasize the teaching of oral language skills over the teaching of reading and writing skills.

The last two variables presented in Table 6.8 relate to teachers' ability to speak, read, or write in other languages and to whether teaching in other languages occurs in the teachers' classrooms (teaching in other languages could occur by teaching aides for example, whether or not the teacher himself/herself used other languages). The teachers' ability to use other languages relates positively to perceiving LEP students' special needs, 1st and 2nd grade reading skills, teaching social studies to LEP students, and 5th grade oral language skills. Teaching in other languages within the teachers' classrooms relates positively to oral language skills (particularly for the upper elementary grades), social studies, and approaches significance for 6th grade writing skills and classroom interaction skills. Thus, ability in other languages and use of other languages in the classroom show somewhat different patterns of relationships to skill variables.

Finally, although not presented in Table 6.8, an analysis was also done regarding correlations of program types (in terms of bilingual emphasis as described in section 6.5.1) with the classroom skills variables. However, this analysis yielded no significant (or even borderline) correlations with any classroom skills variables.

Overall only scattered relationships were found between the variables of training and experience and skills taught. Apparently the decision to teach or not to teach specific areas or skills depended on other variables, such as LEP curriculum, instructional materials, and the severity of the students' limited English proficiency.

6.6 Summary

Limited English Proficient (LEP) children who are found in bilingual classrooms tend to be assessed as having English Language Arts skills increasingly below grade level as classroom grade level increases. This could be due to a variety (or combination) of factors, including:

- As those students who obtain sufficient English Language Arts skills return to an all-English medium classroom, the students remaining give the appearance of decreasing proficiency with increasing grade.

- Some students may in fact be falling further and further behind in English Language Arts skills with increasing grade, perhaps the least able among the LEP.
- New students with limited English Arts skills are continually coming into the program at all grade levels, and at the upper grades their substantially lower entry skills will give the appearance of decreasing proficiency with increasing grades.*

Teachers could be expected to put their greatest emphasis on teaching LEP students at the modal LEP skill level in their classroom, that is, teaching at the level where they find the most LEP students (which is below assigned classroom grade). For reading skills they do appear to be teaching LEP students a high percentage of skills on their modal LEP grade level (about 90%), although they appear to be teaching an equivalent or higher percentage of reading skills which are one or two grades below modal grade level. For writing skills, teachers appear to be teaching LEP students predominantly at one grade level below modal LEP grade, although a fairly high percentage of on-modal LEP grade skills (about 80%) are covered. For oral language skills, teachers appear to be teaching predominantly two grade levels below modal LEP grade, with only about 66 percent of these skills covered on modal (functional) LEP grade level.

It could be argued that skills below the modal LEP grade, as measured by the CSI, might receive somewhat greater emphasis than on-grade skills for several reasons, including:

- While the teachers responded in terms of the modal LEP students in their classroom, typically some of their LEP students were even less skilled;** consequently, teachers had to take these even less skilled LEP students into account.
- Review and practice are important to assure retention of previously addressed skills, and there is a great overlap of skills taught across elementary school grades in general.

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*See Case No. 2 which mentions an influx of Indochinese students with little or no English skills.

**Of course, some of the LEP students were more skilled.

- Some review and relearning of skills from the previous year is necessary after summer vacation.
- The teachers naturally based their LEP skills assessments and teaching on local conditions; therefore, the LSF skill level grades from which the CSI is derived may not reflect these local norms, which may be substantially different from the "norms" on which the LSF is based.

In any case, the relative emphases of teaching at higher skill levels for reading skills versus writing skills versus oral language skills remain clear. It may be that teachers are most "on-grade" for the modal LEP students in the area of reading skills because the most extensive teaching methods and most clearly grade-normed educational materials exist in the reading area. Writing skills may be next most heavily stressed and next closest to being on grade level, because relatively extensive teaching methods and relatively clearly grade-normed educational materials exist in the writing area. Oral language skills may then be least addressed and least on-grade, because relatively little teaching method emphasis is typically placed on this area, and grade-normed educational materials are most lacking in the oral language skill area. Another possible explanation for the data found is that the relative emphases on reading over writing over oral language skills reflect what the teachers in Title VII programs believe to be the relative ranking of the importance of these skill areas, or the most appropriate order of emphasis, for aiding LEP students to function effectively in all-English speaking classrooms.

Finally, a critical observation to be made from the CSI data is that the highly regular and consistent patterns in the data suggest good psychometric discrimination. This is important because the Language Skills Framework (LSF), out of which the Classroom Skills Inventory (CSI) was developed, had not been fully field-tested or validated prior to use in this Study. Thus, the data of this Study provide some field test support for the potential utility of the LSF approach.

In addition to the teaching of specific language arts skills assessed by the CSI, teachers were asked whether they taught mathematics, social studies, and science to LEP children. The general picture that emerged from these data was that a sizeable portion of teachers (about 80%) covered content skills in mathematics, science, and social studies with their LEP students. Teachers frequently modified their objectives and use a slower pace and the native language to assist the LEP students. However, a smaller percentage of teachers taught these subject area skills in upper elementary grades than in the lower grades, particularly mathematics and science. There may be several reasons for this latter phenomenon. It may reflect a move toward a more remediation-oriented approach with students who have not been able (for whatever reasons) to achieve sufficient English language arts skills for exit, despite extended participation in the program; it may reflect the use of a more focused (on English language arts skills per se) approach toward new LEP students who come into the program in upper elementary grades; or it may reflect the greater use of the pull-out approach with upper elementary grades such that these subjects are more often covered only in the regular classrooms. The exact explanation would be more likely to be found with a longitudinal study, which would include individual students over time, which this Study was not designed to obtain.

This chapter has dealt with those skills addressed in Title VII classrooms and discusses the method used to determine the skills needed to function in an all-English-medium classroom. The next chapter provides the overall Study conclusions.

CHAPTER 7

GENERAL CONCLUSIONS

The goal of this Study was to describe the characteristics of the classroom instruction component of Basic projects funded under the ESEA Title VII Bilingual Education Program. The preceding chapters of this volume have presented the detailed findings from this Study. In this concluding chapter, data from all aspects of the Study are synthesized to present a set of overall findings and conclusions organized by the Study's specific objectives. The Department of Education's objectives for the Study were stated in three two-part statements. To facilitate presentation, the statements were divided into six specific objectives, each of which is addressed below.

Study Objective 1

> "To describe the characteristics of a representative sample of Title VII-funded Basic bilingual education projects."

In FY 1980 there were a total of 524 Basic projects, three-quarters of which were in at least their second year of operation. The median grant award was nearly $150,000 in FY 1980. The heaviest concentration of projects (28%) was in the Pacific Southwest region of the country. The vast majority of projects operated within a single school district and served an average of 30% of all schools within their districts.

In 1980, the projects served between 160,000 and 200,000 LEP children. The smallest project served a total of 17 students (LEP and non-LEP) and the largest served 5,488. The average number of students in self-contained classrooms was 28; the majority of these students were clustered in the lower elementary grades (87% in K-3). LEP students represented 43% of the total in each class.

A typical bilingual education classroom was found to contain a heterogeneous group of students who varied in language background and

English proficiency. Principals and teachers reported students were generally working below both national and local academic norms.

Three-quarters of the projects served a single native language group. As has been true since Title VII began, the majority of projects (59% in 1980) served exclusively Spanish-speaking students, but the composition of projects has changed over time. The data showed a decrease from FY78 to FY80 in the total number of projects serving at least some Spanish-speaking students, from 422 (74% of all projects) to 358 (68%). During the same time period, the number of unique languages addressed by projects increased from 60 to 91.

Overall, project staff members were qualified and experienced. Three-quarters of project directors were full-time and supported by Title VII funding. The typical project director had previous experience as a teacher in a bilingual classroom, and two or more years' administrative experience with Title VII. Over 90 percent of the project directors had at least a master's degree.

Principals of schools served by Title VII also had substantial relevant experience. The average principal had 11 years' experience in the position and also had 7 years' experience with Title VII. Additionally, almost half the principals could speak a second language and, of these, 83 percent used it in their work.

In accordance with the federal mandate, classroom teachers are not funded by Title VII. Title VII does, however, fund a variety of professional staff positions to assist the classroom teachers. These include resource teachers, speech therapists, special educators, subject matter specialists, curriculum coordinators who provide direct assistance to teachers, or teacher trainers who provide inservice training either on a one-to-one, as-needed basis or on a more formally scheduled group basis.

The majority of classroom teachers (66%) reported that they were proficient in a language other than English. Forty percent of the classroom teachers and 30 percent of the resource teachers were certified in bilingual education. In interpreting these percentages of certified teachers, it should be remembered that bilingual education is a new area of concern in many states, and many do not have provision for such certification.

Virtually all teachers had a college degree, with one-quarter of the classroom teachers and over half the resource teachers also having a graduate degree, usually an MS in Education. Further, 90 percent of classroom teachers and 70 percent of resource teachers were certified to teach at the elementary level and 60 percent of the resource teachers also had certification as a specialist. Over 79 percent of the classroom teachers and 82 percent of the resource teachers had at least 4 years of teaching experience.

Aides were used in 87 percent of the classrooms in the sixty sites visited. Almost one-third of the aides had at least some post-secondary education. Aides were most frequently used to assist the teachers in teaching ESL and native reading and language arts.

Title VII requires the input of an advisory council consisting of parents and other representatives of the LEP community. Ninety-eight percent of the projects had Parent Advisory Committees. According to project directors, nearly all committees were involved to some extent in preparing the project application, and 63 percent of the committee chairpersons felt their committee had helped solve problems during the project year. Overall, the parent committees were reported to be playing a strong and active role in project operations.

In conclusion, it was found that most projects served Spanish-speaking students who were working below both national and local academic norms. However, the number of projects serving children using Asian and American Indian languages is increasing as are the number of unique language groups served. Staff members are qualified and experienced, and parent input, through Parent Advisory Committees, is a factor in the planning and operation of projects.

Study Objective 2

"To identify groups of projects which appear to represent distinctly different instructional approaches to the education of children with limited English proficiency."

Instructional approaches varied across projects, and projects did not cluster meaningfully in terms of approaches employed.* For example, although 27 percent of the project directors interviewed reported that an externally developed educational model had been adopted, no more than two project directors reported adopting the same model. Within projects, the instructional approach often varied by grade level in response to student needs.

Based on responses by project directors to the modified Fishman-Lovas typology, it was found that a small proportion (7%) of K-6 projects use only English (Type I). The majority (69%) of projects use both English and the native language (Types II-IV), but place their major focus on English and use the native language to varying extents and for different purposes. A significant proportion (21%) of the projects use both languages to teach all subjects (Type V), and a few (3%) reported using more than one type.

These findings were generally corroborated by teacher reports of the time they spent in English and native language instruction. Teachers reported using English more than 70 percent of the time in English reading and language arts, ESL, mathematics, social studies and science. English was used 61 percent of the time for cultural enrichment. As may be expected, the native language was used 88 percent of the time for instruction in native language reading and language arts. Overall, teachers reported using English as the language for instruction 72 percent of the time.

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*See Selected Case Histories volume which contains descriptions of particular instructional approaches used.

The extent of use of English and native language for instruction varied within project by grade level. In general, there appeared to be a greater tendency to use the native language more extensively at the lower grade levels and to use English more frequently at the upper grade levels.

The language in which LEP non-readers were first taught to read varied by project language. While the native language was used exclusively in 75 percent of the Spanish-only projects to first teach reading, it was used in less than 20 percent of the projects that served other languages. Conversely, English was used exclusively in only 2 percent of the Spanish-only projects to first teach reading. On the other hand, English was used exclusively in over 60 percent of the projects serving other languages to first teach reading.

Project staff try to integrate LEP students with their all-English-speaking peers to the greatest extent possible, while at the same time providing special language help, often using the pull-out mode of instruction. Nearly 40 percent of the projects used the pull-out model either exclusively or in conjunction with the in-class model. The frequency of the pull-out approach increased with grade level, with pull-out used more in grades three through six than in kindergarten through grade two. The use of the pull-out approach also varied by subject matter.

Pull-out was used more frequently in conjunction with ESL than with any other subject area, where it was used to some extent by 23 percent of the classroom teachers who taught ESL. The pull-out approach was also used by about one-fifth of the teachers for native language and English language reading and language arts but was used less for teaching other subjects.

In conclusion, projects did not cluster with respect to distinctly different instructional approaches. It also appears that instructional approach varied across grades and across subject areas. About one-third of the teachers, for example, reported using an in-class, teacher-only approach for teaching English reading but less than 10 percent reported using this approach to teaching native language reading or language arts. In sum, projects were too varied to be grouped by the definitions and typology used in the Study. Furthermore, it is clear that projects utilize more than one instructional approach to meet the needs of the various grade levels they serve and the subject areas being taught. Thus, in the future, instructional approaches or activities should be examined not at the project level but at the classroom level and, if possible, at the individual student level.

Study Objective 3

"To determine project objectives."

Project objectives were reviewed in the areas of instruction, staff development and training, parent and community involvement, management/administration, and materials development and acquisition. Instructional objectives were the most frequently formulated. It was found that 97 percent of projects included among their annual objectives increasing their students' English language skills. Social studies/cultural heritage and mathematics/science instructional objectives were formulated by 82 percent and 79 percent of projects, respectively. Native language skills instructional objectives were prepared by 67 percent of projects.

Management/administration objectives were also frequently formulated. Ninety-one percent of projects had objectives pertaining to project staffing, and 86 percent of projects cited the employment of bilingual personnel as an objective. With regard to staff development and training, 79 percent of projects reported district level inservice training as an objective, while 68 percent cited college or university coursework for staff as an objective.

Objectives in the areas of parent/community involvement and materials development/acquisition were less frequently formulated by projects. Sixty-six percent of projects cited PAC assistance with planning as an objective, and 39 percent of projects cited instructional materials development and/or acquisition as an objective.

The overall extent of specification of an objective was measured by a composite variable consisting of the objective's product, process, and evaluation components. The data showed that instructional objectives in the area of English language skills were the most completely formulated, followed by mathematics/science and social studies/cultural heritage instructional objectives. Staff development and training objectives were less completely formulated than instructional objectives. It appears that projects are concentrating their efforts concerning formulation of annual objectives in the areas of instruction, management, and staff development/training. Within the instructional area, projects clearly emphasize English language skills objectives over native language skills objectives.

The Study found that projects generally did not modify their objectives. It was found, however, that small modifications were made to the instructional approach in some projects. For example, one-quarter of the teachers who were interviewed reported making changes to their instructional approach, materials, or activities over the life of the project. These modifications were predominantly related to their students' grade and ability levels. Generalizing to projects as a whole, it can be stated that modifications to objectives were made infrequently, and when modifications did occur, they were primarily to help meet the changing needs of LEP students.

The data showed that projects pursued similar objectives. Objectives in the areas of instruction, management, and staff training were stated in the large majority of project applications. Few projects formulated objectives in the area of materials development and training.

The data on project implementation suggest a relationship between projects stating an objective and the extent of implementation in that area. Instruction, parent involvement, and management were implemented by the largest percentages of projects, and these were identified as objectives by a similar percentage of projects. Staff training was also carried out by a lesser number of projects, and it was identified as an objective by a smaller number. Thus, it appears that in most cases stated objectives were addressed, and objectives in one project component have no greater chance of being implemented than those in other project components.

Overall, projects formulated objectives more often in the areas of instruction, staff development and training, and management/administration. Objectives in the areas of parent and community involvement and materials development and acquisition were generally formulated less frequently. In addition, projects did not usually modify their objectives; however, on occasion, instructional approaches were modified slightly to meet changing student needs.

Study Objective 4

> "To determine the relationship between skills actually addressed by the projects and those skills necessary to function effectively in an all-English-medium classroom in the United States."

The Language Skills Framework (LSF) developed by SWRL was used as the basis for determining the "skills necessary to function effectively in an all-English-medium classroom." The LSF system comprised three major components: reading skills, writing skills, and oral language skills. Some modifications were made by Development Associates and the revision was titled the Classroom Skills Inventory (CSI). The purpose of the CSI was to measure the extent to which teachers addressed the specific reading, writing and oral language skills which LEP students need to function effectively in an all-English speaking classroom.

The respondents for the CSI were Title VII classroom teachers randomly sampled from grades K through 6 in proportion to classroom grades represented. Since a typical classroom has LEP students functioning at several different grade levels, the CSI was designed to focus on the skill level of the majority of LEP students in the classroom. Prior to completing the CSI, each teacher was instructed to focus on the modal (average) group of LEP students, and to specifically indicate whether each of the skills described in the CSI had been or would be taught that year to the identified group of students. The "modal LEP grade" for each classroom was the grade level at which the teacher indicated the greatest number of LEP students were functioning, and this determined which CSI booklet was to be completed.

Materials within a CSI booklet generally focused on four LSF skill grade levels: items two grades below the functional grade, one grade below the functional grade, on-grade, and one grade above the functional grade. The CSI data were analyzed from three perspectives: the teacher survey itself, the skills taught at the students actual assigned grade level, and the skills taught at the students' functional (modal) grade level.

The survey of teachers in English Language Arts indicated that as the classroom grade level increased, the LEP students tended to function increasingly below classroom grade level. The data showed that modal LEP students were most typically on-grade for the lowest grades, one grade below classroom grade for the middle grades, and two grades (sometimes more) below level at the fifth and sixth grade levels. Possible explanations of this which are presented in Chapter 6 are that: individual students fall further behind each year; the more capable students exit early, leaving only the least proficient behind; and new children (e.g., refugees) enter the program.

From the perspective of reading, writing and oral language skills taught at assigned classroom grade levels, the percentage of above grade level skills addressed tended to be substantially below the percentage of on-grade and below grade level skills addressed. Generally, reading skills were addressed more completely than writing skills, and both these skills were more completely addressed than oral language skills. The percentage of on-grade reading skills addressed averaged in the high eighties; the percentage of on-grade writing skills addressed averaged in the low eighties; and the percentage of on-grade oral language skills averaged in the low sixties across all grade levels.

From the perspective of skills taught at the functional (modal LEP) grade level, the percentages of on-grade level skills addressed were typically slightly higher than the percentages of skills addressed at-assigned classroom-grade level. This confirmed the Study expectation that teachers emphasize skill levels at the students' functional grade level, rather than at the assigned classroom grade level. The teacher survey data suggest this is part of an effort to individualize instruction; teachers indicated they frequently modified their objectives and used a slower pace and the native language to assist LEP students.

Overall, teachers addressed more LSF skills one or two grades below the functional grade than they did at the functional grade level. More specifically, for reading skills they appeared to be teaching a high percentage of skills at the students' functional grade level, although they also appeared to be teaching an equivalent or higher percentage of reading skills which were one or two grades below functional grade level. For writing skills, teachers appeared to be teaching predominantly at one grade level below functional grade, although a fairly high percentage of on-functional grade level skills were also covered. For oral language skills, teachers appeared to be teaching predominantly two grade levels below the functional grade level.

In addition to the teaching of specific language arts skills assessed by the CSI, teachers were asked whether they taught mathematics, social studies, and science to LEP children. The general picture that emerged from these data was that a sizeable portion (80%) of teachers covered content skills in mathematics, science, and social studies with their LEP students. However, a smaller percentage of teachers taught these subject area skills in upper elementary grades than in the lower grades, particularly for mathematics and science.

Overall it was found that the skills necessary to function effectively in an all-English speaking classroom were generally being taught. As expected there is more emphasis on teaching below assigned grade level; there is also considerable teaching below students' functional grade level, and this was not expected. The emphasis varied, however, by subject area, with 80 percent or more of on-assigned grade level skills being taught for reading and writing and only 60 percent for oral language skills. Thus, it is clear that there is greatest emphasis on teaching on-grade level skills in reading, followed closely by writing, with oral language skills the least emphasized. The data also show that more than 80 percent of the teachers also teach the content skill areas of mathematics, social studies and science, although they teach these subjects somewhat more in the lower grades than in the upper grades. The data additionally suggest that the teachers are differentiating among student skill levels and adjusting their instruction accordingly. However, all of these patterns vary somewhat by grade level such that the higher the assigned grade level, the lower the grade level of instruction.

Study Objective 5

"To determine the degree of program implementation among local education agencies."

The Study examined levels of activity and program development in each of four general implementation areas: classroom instruction, staff development, parent involvement, and project management. Overall it was found that a full instructional program was provided to students with most of the instruction being provided in English. Project teachers used English more than 70 percent of the time for teaching English reading and language arts, ESL, mathematics, social studies, and science. For cultural enrichment, English was used 61 percent of the time. In native reading and language arts, the native language was used 88 percent of the time. There appeared to be a greater tendency to use the native language at the lower grade levels and to use English more frequently at the upper grade levels. The time actually spent on each subject area varied widely, ranging from an average of 6 1/2 hours per week on English Reading and Language Arts to 1 to 1 1/2 hours per week on science, cultural enrichment and social studies. Math, ESL and native language reading and language arts involved about 3 1/2 hours per week each.

Important aspects of classroom instruction are the skills taught and the determination of when to transfer students to an all-English speaking classroom. The skills taught were previously discussed under objective four where it was stated that, generally, students were being taught appropriate skills. The time it takes for skill instruction to result in student transfer varied depending on grade level. Kindergarten teachers reported the longest time period (2.7 years) and second grade teachers the shortest (1.7 years). However, since teachers also reported teaching further below grade level as the students' assigned grade level increased, it appears that some students are staying in the program considerably longer than others.

In the area of staff development, 61 percent of the classroom and 76 percent of the resource teachers had received some bilingual education in-service training. Project directors reported that virtually all of the training sessions had included methods for teaching content areas to LEP students. Classroom teachers most frequently reported attending sessions that covered development of goals and curriculum. For resource teachers, the most frequently cited topics were goal development, student assessment, and dealing with the different educational needs of students from different backgrounds. Eighty-seven percent of the classroom and the resource teachers were either moderately or very satisfied with the quality of their training and over half the teachers who had received training on a topic wanted more in that area. Thus, while staff development is occurring to a significant extent, more is desired.

In the area of parent involvement, 9[illegible] percent of all projects reported having a PAC. Seventy-two percent of the PAC chairpersons reported that they visited the school five or more times throughout the school year. Over two-thirds of the chairpersons reported that their PACs were moderately or very active in school activities and 62 percent reported that they were moderately or very active in preparing the project proposal for OBEMLA. However, principals and teachers did not consider the parent role as important, with a little less than half reporting parents helped to some extent.

In the area of project management, the Study generally found strong evidence of effective implementation. The data showed that 91 percent of project directors said they had a written plan for administering the project. Ninety-four percent of these directors said they followed their plan, and 71 percent indicated that their plan included written management objectives. The data also showed that 81 percent of project directors reported that they had prepared multi-year project plans for their initial proposal. Seventy-eight percent of these project directors indicated that they had implemented their multi-year project plans to a great or very great extent.

In addition, the Study looked at the important area of institutionalization of project services which can be viewed as another indicator of the extent of program implementation. If a program is to be institutionalized, it first must be adequately implemented. To assess probability of institutionalization, the Title VII project and district staff were asked if the project was effectively accomplishing its goals and meeting local needs. Almost three-quarters of the superintendents who were interviewed believed the project was effectively accomplishing its goals to a great or very great degree. In addition, approximately two-thirds of teachers considered the project to be a definite advantage or a vital addition to the district's educational system. However, district administrators were concerned about their ability to continue the project without federal funding. Seventy-six percent of superintendents, 82 percent of federal programs coordinators, and 72 percent of principals said that bilingual education services would be reduced or dropped if Title VII funding was reduced or discontinued. Thus, the Study generally found a high degree of implementation across most key project components. District and project staff, however, were concerned about institutionalization and generally agreed that project services would be reduced or dropped if Title VII funding was reduced or discontinued.

The Study also examined relationships between certain project characteristics and the type of educational approaches/objectives which were implemented; however, these relationships generally were not strong. In most subject areas, teachers in large projects reported they used the native language for a larger percentage of time than did teachers in small projects. The data also showed that more older projects than first year projects were categorized as Type V (all subjects taught in both languages) under the modified Fishman-Lovas typology. In the same manner, more Spanish-only projects than projects which served other languages were described as Types II or V. Further, while the native language was used exclusively in 75 percent of "Spanish-only" projects to initially teach reading, it was used in less than 20 percent of projects which served other languages. Conversely, English was used exclusively in 60 percent of other language projects to initially teach reading.

The extent of staff [illegible] and training also varied by project type. Prior to the 19[illegible]1 sc[illegible] year, a higher percentage of classroom teachers in older projects had received inservice training than teachers in new projects. Similarly, almost all teachers in new Spanish projects had received such training, as compared to less than 10 percent of teachers in new other language projects. During the 1980-81 school year, Spanish-only and older projects reported more training for teachers. With regard to differences among instructional approaches, only one-third of classroom teachers in Type I projects (ESL) reported participating in training, while two-thirds of classroom teachers in Type V (all subjects taught in both languages) participated in training.

In sum, there is a high degree of implementation across most key project components, including classroom instruction, staff development, parent involvement, and project management. Projects were also reviewed to identify similarities, if any, in instructional approaches and level of staff development and training. There appears to be some tendency for projects of certain types or with certain characteristics to implement certain approaches and objectives. However the tendencies are not strong and show a mixed pattern. This mixed picture showing few relationships suggests, in conjunction with data presented on Objectives 1-4, that the primary focus of projects is on the individual needs of students, which precluded the identification of patterns at the project level.

Study Objective 6

"To identify factors which enhance or impede project implementation."

While no single factor or group of factors will ensure successful implementation, certain activities have been identified in the literature as being a necessary condition to success. These activities or factors are: broad-based participation; pre- and inservice training; program development/modification; feedback mechanisms; and resource support. As discussed below, project and district level personnel confirmed that these factors were important to the successful implementation of their project.

Broad-based participation and support by both district and school personnel and by the community are important to project implementation. Over half of the project directors indicated that assistance and cooperation of school administrative staff helped project operations to a great or very great extent. Two-thirds of project directors and principals reported that cooperation between project and non-project teachers helped implementation. Further, about half of the district administrators, principals, and teachers felt that parents and the community helped project operations. Although it was reported by staff that the community as a whole which the project served was not a critical factor in project implementation, the data do indicate that parents, PAC members, and others in the community were often intensely involved on an on-going basis, and that their contributions were important.

The literature on implementation also suggests that pre-service and inservice training are important. Title VII regulations recognized this by delineating a separate staff development component. It was found that 61 percent of classroom and 76 percent of resource teachers had received some bilingual education training prior to the 1980-81 school year. Further, 54 percent of classroom teachers and 62 percent of resource teachers reported they received inservice training during the 1980-81 school year prior to the site visits in January, February, and March. About three-quarters of the principals and teachers reported that pre- and inservice training had helped the implementation of their projects.

Another factor cited as important to implementation is program development/modification. The literature points out that projects need to develop strategies for program modification in response to changing requirements, circumstances, emerging needs, constraints, and early outcomes. The data from this Study showed that teachers reported few modifications in their instructional plans. Only one-quarter of the teachers reported making modifications to their instructional approach, materials, or activities over the life of the project. However, it was also found that teachers did not think in terms of plans being modified, but in terms of evolving plans. This being the case, modifications or changes were likely being made to a greater extent than was reported.

The literature also points out that feedback mechanisms through needs assessments and evaluations are important to implementation. Eighty percent of project directors reported carrying out needs assessments during the 1980-81 school year, and a similar percentage reported carrying out internal evaluations and monitoring efforts and that these had been moderately or very effective in assisting project implementation.

Resource support has also been frequently cited as necessary to project implementation. Specifically, project directors, principals, and teachers reported that available materials and the technical assistance they received helped project implementation. Three-quarters of projects received materials, services, or training from a Bilingual Education Service Center (BESC), and two-thirds of the directors of these projects reported that this support was moderately or very effective. Over half of the project directors also reported that resource support received from their SEA was useful.

Overall, a majority of the projects were carrying out implementation strategies which were identified in the literature as being necessary for successful project implementation. The study findings indicated that project and district level staff generally thought that implementation of these activities enhanced the success of their project.

In addition to assessing the extent to which the above factors enhanced project implementation, multiple regression analyses were computed to determine what major project characteristics were related to implementation of specific project features or components. In general, project characteristics were found to be more related to the instructional component than to staff development, project management, or parent and community involvement. Although a fair number of statistically significant relationships were found, these do not further explain successful implementation.

Finally, the positive opinion which administrators and teaching staff held of the project's operations is a factor which should enhance or greatly aid in setting the foundation for institutionalization. Most district and program personnel associated with Title VII projects had a positive opinion of the local program's impact on spoken English, academic skills, English language reading skills, native language skills, cultural awareness, attitude toward school, and self-image. On a more specific level, half of the project directors believed that most or all of their students would be able to function effectively in an all English-medium classroom when they left the Title VII program, although an additional 14% felt that less than half of their exiting students would be able to function effectively. On the other hand, negative factors which could hinder institutionalization are the beliefs of 18% of the Superintendents that conflicting viewpoints toward bilingual education exist within their community, and the general view of LEA staff that federal resources are needed to continue project operations at the same level.

* * * * *

This Study has presented a large amount of information on a large and diverse program. This makes forming an impression or making an assessment difficult. These are, however, some general impressions which are strongly suggested. Overall, the results describe a program which is changing to meet new circumstances and students. In essence, the Title VII Basic Program across the country is:

- highly varied with an emphasis on meeting individual student needs;
- emphasizing English instruction, but with many projects making heavy use of the native language;
- being implemented to a successful degree in many school districts, but facing problems regarding the need for more staff training, and the need for more effective parent participation in some projects; and
- only partially successful at the local level in terms of institutionalization, with Title VII remaining the primary source of funds for projects.

APPENDICES

APPENDIX 1

TITLE VII PROJECTS PARTICIPATING IN STUDY SITE VISITS

APPENDIX 1

LIST OF TITLE VII PROJECTS PARTICIPATING IN THE STUDY

State	City
Arizona	Sanders
California	Bakersfield
	Calexico
	Encenitas
	Gilroy
	Huntington Beach
	Irvine
	Keyes
	La Puente
	Lompoc
	Merced
	Mt. View
	Ontario
	Salinas
	Tracy
Colorado	Pueblo
Connecticut	Willimantic
Florida	Bartow
	Clewiston
	Ft. Myers
	Naples
Georgia	Atlanta
Illinois	Rochelle
	Waukegan
Indiana	South Bend
Louisiana	Houma
Michigan	Detroit
	Hamtramck
Montana	Hardin
New Jersey	Englewood
	Newark
New Mexico	Clovis
	Dulce
New York	Brooklyn #19
	East Bloomfield
	Eastchester
	Forest Hills
	Lido Beach
North Carolina	Winston-Salem
Ohio	Lorain
Oklahoma	Ada (Seminole)
Pennsylvania	Philadelphia
Tennessee	Memphis
Texas	Brownsville
	Dallas
	El Paso
	El Paso (Ysleta)
	Elgin
	Hidalgo
	Kingsville
	New Braunfels
	Pearsall
	San Diego
Utah	Price
	Salt Lake City
	Vernal
Virgina	Arlington
Washington	Moses Lake
	Tacoma
Wisconsin	Oneida

APPENDIX 2

TOPICS INCLUDED IN STUDY DATA COLLECTION INSTRUMENTS

APPENDIX 2

TOPICS INCLUDED IN STUDY DATA COLLECTION INSTRUMENTS

1. Project Director Mail Questionnaire

This form covered the following topics:

- Local community and parent involvement planning;
- Evaluation and management of instructions;
- Project implementation;
- Training and technical assistance; and
- Trends in student achievement.

2. Parent Advisory Committee Mail Chairperson Questionnaire

This structured, self-administered instrument deals with:

- The role and composition of the PAC;
- The style and effectiveness of role in working with the LEA project;
- Suggestions for improvement of PAC roles to enhance implementation; and
- Attitudes toward student gains via program participation.

3. Superintendent Interview

This interview provided the LEA point of view on such topics as the:

- Types of impact that federal funding has had on the quality of the LEA's education program;
- Kinds of support provided to the bilingual program by the community; and
- Past, present and future status of bilingual education in the LEA.

4. LEA Coordinator of Federal Programs Interview

This interview deals mainly with implementation, specifically:

- The impact of other specially-funded programs;
- The integration of the Title VII projects; and
- Factors which facilitate and hinder the implementation process.

5. Project Director Interview

This interview focused on:

- Student assessment;
- Organization and management;
- Learning and instruction;
- Training and technical assistance;
- Evaluation; and
- Community.

6. School Principal Interview

This interview provided a description of:

- The local school;
- The school's bilingual education program;
- Parent involvement;
- The Parent Advisory Committee;
- Services delivered directly to parents;
- Perceptions of the program; and the
- Implementation process.

7. Teacher Interview

The Teacher Interview focused on:

- Teacher training and preparation;
- Program modifications in the classroom as a result of Title VII;
- The level of project implementation in the school; and the
- Teacher perceptions of the project.

8. Classroom Skills Inventory

Part A: Teacher characteristics.
Part B: (self administered) asks for data on the functional grade level of English language arts skills of LEP students in the program. A different form exists for each functional grade level in the K-6 range.

9. Teacher Aide Interview

This form solicits the aide's perceptions of:

- The bilingual program in their schools;
- Its stage of implementation in regard to: staffing, instructional practices, materials and community involvement; and
- Aide characteristics.

10. Parent Advisory Committee Chairperson Interview

This interview gathered information on:

- The composition of the committee;
- The PAC role in the project;
- The impact on the project in promoting parent involvement; and
- Perceptions of project management.

11. Document Review Data Recording Form

This contained instructions for recording:

- Project characteristics (of funding level, languages being used, schools served, numbers of students, etc. number and type of staff being used, including resource teachers, etc.);

- Community and characteristics; and
- Duration and nature of other past and ongoing bilingual education programs in the district.

12. Application Plans and Objectives Data Recording Form

Global Features

- Long term goals·
- Legislative requirements; and
- Objective format.

Specific Features

Annual objectives by project component

- Instruction;
- Staff Development and Training
- Parent and Community Involvement; and
- Management.

Format of Annual Objectives

- Minimal form;
- Product objective;
- Process objective; and
- Lesson plan or curriculum unit objective.

13. Case History Topic Outline Guide

Project Overview

- Identification information;
- Background information;
- Objectives and procedures;
- Participants; and
- Personnel.

Program Development

- Planning the program (prior to award); and
- Changes/growth in original program.

Instructional Component by Grade Level and Content Area

- Objectives; and
- Particular information for each grade and subject.

Staff Development and Training Component

- Objectives;
- Extent;
- Schedule; and
- Activities.

Parent/Community Involvement Component

- Rationale and purposes;
- Historical perspective;
- Structure of advisory committee;
- Specific nature of involvement; and
- Results.

Project Management

- Objectives;
- Management strategies; and
- Climate

Intermediate Outcomes

14. Case Study Guide

Project Background and History
Language and Cultural Considerations
Administration and Implementation of the Project
Instructional Concepts
Resources and Materials
Project Interfaces or Linkages
Future of the Project
Personnel

APPENDIX 3

STUDY ADVISORY PANELS

The Policy Advisory Panel

Theodore Andersson, PhD
Spanish and Portuguese Department
Foreign Language Education Center
The University of Texas at Austin

Tomas Saucedo
Senior Associate
National Education Association

Maria Medina Seidner
Manager, Bilingual Section
Illinois State Board of Education

Carmen A. Perez
Chief, Bureau of Bilingual Education
New York State Education Department

John Young, PhD
Co-Director, Asian Bilingual
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Seton Hall University

The Technical Advisory Panel

K. Balasubramonian, PhD
Assistant Director
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Gustavo Gonzalez, PhD
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Rodney Skager, PhD
Professor, Graduate School of Education
University of California of Los Angeles

APPENDIX 4

VARIABLES USED IN MULTIPLE REGRESSION ANALYSES

APPENDIX 4

VARIABLES USED IN MULTIPLE REGRESSION ANALYSES AND THEIR ASSOCIATED RELIABILITY (ALPHA) COEFFICIENTS

DEPENDENT

Instrument						Content
Project Director Mail				Teacher Interview		
ITEM NUMBER	ALPHA			ITEM NUMBER	ALPHA	
	UNIVERSE		ON-SITE SAMPLE			
	PK-12	K-6	K-6			
						Pull-out used in instruction
				20b1		English reading and language arts
				20b2		ESL
				20b3		Native reading and language arts
				20b4		Math
				20b5		Social Studies
				20b6		Science
				20b7		Cultural Enrichment
				20b	.82	Average
						Aide used in instruction
				20c1		English reading and language arts
				20c2		ESL
				20c3		Native reading and language arts
				20c4		Math
				20c5		Social Studies
				20c6		Science
				20c7		Cultural Enrichment
				20c	.95	Average
						Percent Time Native Language in Instruction
				20d1		English reading and language arts
				20d2		ESL
				20d3		Native reading and language arts
				20d4		Math
				20d5		Social Studies
				20d6		Science
				20d7		Cultural Enrichment
				20d	.73	Average
						Use of both languages in instruction areas (none/some/all) grades
14	.94	.93	.94			Math: Both languages
	.93	.93	.91			Reading: Both languages
	.94	.93	.94			Science: Both languages
	.94	.94	.96			Social Studies: Both languages
	.97	.96	.96			Other: Both languages
	.97	.97	.97			Average: Both languages

APPENDIX 4

VARIABLES USED IN MULTIPLE REGRESSION ANALYSES AND THEIR ASSOCIATED RELIABILITY (ALPHA) COEFFICIENTS

(continued)
DEPENDENT

Instrument						Content
Project Director Mail				Teacher Interview		
ITEM NUMBER	ALPHA			ITEM NUMBER	ALPHA	
	UNIVERSE		ON-SITE SAMPLE			
	PK-12	K-6	K-6			
						Use of English only in instruction areas (none/some/all) grades
	.92	.92	.94			Math: English only
	.93	.93	.94			Reading: English only
	.94	.94	.96			Science: English only
	.93	.94	.95			Social Studies: English only
	.97	.96	.96			Other: English only
	.96	.96	.97			Average English only
						Staff development component
19bC:1-6,	.88	.89	.82			Overall implementation of plans
25:1,2	.51	.45	.53			Inservice training (proportion of teachers and aides)
				5a or 5c		Training (no/yes)
				3:3 or 5a or 5c		Training or certification
				8		Training (hours)
						Instructional Component
19aC:1						Objectives
19aC:3, 4	.84	.82	.82			Entry/exit
19aC:2,8,9,10	.81	.79	.64			Approach
19aC:6,7	.79	.83	.69			Curriculum
				17j		Materials
19aC:11,17						Evaluation
19bC:9,14,15	.83	.84	.75			Evaluations
19aC:12-16						Staffing
19bC:16,17	.90	.90	.89			
19bC:11						Reporting and dissemination
19bC:18,19	.85	.84	.90			Objectives
19bC:7,8	.58	.60	.44			Materials
19bC:10,12,13	.85	.83	.77			Parent and Community Involvement Component

APPENDIX 4

VARIABLES USED IN MULTIPLE REGRESSION ANALYSES AND THEIR ASSOCIATED RELIABILITY (ALPHA) COEFFICIENTS
(continued)
INDEPENDENT

Instrument						Content
Project Director Mail				Teacher Interview		
ITEM NUMBER	ALPHA			ITEM NUMBER	ALPHA	
	UNIVERSE		ON-SITE SAMPLE			
	PK-12	K-6	K-6			
						Project size (small/medium/large)
						Project age (new/old)
						Project lanugage (other/Spanish)
						Languages (#:1-4)
				T19a		Class size
33						OBEMLA helpfulness
31						SEA helpfulness
3b						BESC services (effectiveness)
28						EDAC materials (extent)
5A						PD (years)
6B						PD years as BE teacher
251						Inservice (proportion teachers)
252						Inservice: (proportion aides)
						Factors affecting implementation
18a,b	.63	.66	.64			Federal
18c						State
17r; 18d,e	.66	.68	.64	T22m,q,t,u	.69	District
17g-i,m; 18f	.58	.50	.40	T22g,h,i,v	.59	School
17p,q; 18g	.70	.69	.63	T22r,s,w,x	.73	Community
17a-f,j,k, l,n,o	.78	.78	.84	T22a-f,j-l n-p	.88	Project
						Project Director involvement
10:1-3	.68	.70	.79			Evaluation
10:4,5	.81	.84	.83			Parents
10:6						Review of student achievement
				T24	.94	Project management
22						PAC assistance in developing application

APPENDIX 5

TRENDS IN LANGUAGES USED BY TITLE VII PROJECTS (1978-1980)

APPENDIX 5

TRENDS IN LANGUAGES USED BY TITLE VII PROJECTS (1978-1980)

Languages	1978 - 1979	1979 - 1980	1980-1981
Spanish	422	395	358
Vietnamese	7	20	43
Korean	5	14	25
Laotian	-	1	27
Italian	15	26	23
Portuguese	17	23	18
Chinese (including Cantonese and Mandarin)	7	25	30
French	22	17	21
Khmer	-	-	7
Japanese	2	9	15
Navajo	17	12	12
Greek	1	13	12
Arabic	4	4	12
Haitian French (Creole)	1	6	6
Hmong	-	-	13
Apache	1	2	2
Armenian	2	2	3
Carolinian	1	1	1
Chamorro	2	2	3
Cherokee	2	3	2
Cheyenne	1	2	2
Choctaw	2	2	1
Creek	1	1	1
Crow	4	3	5
French Canadian	2	11	1
German	1	2	4
Gwich'in	1	1	1
Haulapai	1	1	1
Havasupai	2	2	2
Ilocano	4	1	4
Inupiaq	2	2	2
Kusaian	1	1	1
Lakota	3	4	5
Menominee	1	2	1
Mohawk	3	3	3
Ojibwe	1	6	2
Passamoquoddy	1	1	1
Pima	1	1	1
Ponapono	1	1	1
Punjabi	1	1	2
Russian	1	5	7
Samoan	1	2	7
Seminole	1	3	1
Tewa	4	2	3

	1978 - 1979	1979 - 1980	1980-1981
Languages			
Yapese	1	1	1
Yiddish	2	4	2
Yup'ik	3	3	4
Aleut	1	1	-
Hungarian	1	1	-
Trukese	1	1	-
Palawan	1	2	-
Piaute	1	1	-
Ulithian	1	1	-
Woleian	1	1	-
Keresan	2	-	1
Miccosukee	1	-	1
Ute	2	-	1
Athabascan	1	-	-
Eelaponke	1	-	-
Haitian	5	-	-
Marshalese	1	-	-
Sioux	1	-	-
Indochinese	-	1	-
Keres-Acoma	-	1	-
Acoma	-	1	1
Cambodian	-	1	5
Chaldean	-	1	2
French Creole	-	2	1
Haitian Creole/French	-	3	2
Hawaiian	-	2	1
Native American	-	1	2
Oneida	-	2	2
Papago	-	2	2
Thai	-	1	3
Tongan	-	2	2
Albanian	-	-	2
Arapahoe	-	-	2
Assiniboine	-	-	1
Cape Verdean	-	-	3
Cree	-	-	1
Danish	-	-	1
Dutch	-	-	1
Farsi	-	-	5
Finnish	-	-	1
Gros Ventre	-	-	1
Hebrew	-	-	3
Haitian Creole	-	-	4
Hindi	-	-	3
Hopi	-	-	1
Jicarilla	-	-	1
Kuchin	-	-	1
Lebanese	-	-	1
Macedonian	-	-	1
Pit River	-	-	1
Polish	-	-	1

Languages	1978 - 1979	1979 - 1980	1980-1981
Seneca	-	-	2
Shona	-	-	2
Telegu	-	-	1
Turkish	-	-	1
Urdu	-	-	1
Yaqui	-	-	1
Zulu	-	-	1
Philipino (Tagalog)	6	8	16
Total Number of Languages	60	68	91

APPENDIX 6

SELECTED CHARACTERISTICS OF BILINGUAL EDUCATION PROJECTS

TABLE 1

Language Distribution by Language

(Data Source: Project Applications, N=524)

	Number	Percent
Spanish Only	300	59.3
Spanish and other	90	17.8
Native American Only	44	8.7
Two or More Non-Spanish	30	5.9
Other Single Languages	29	5.7
Asian Only	13	2.5
	506	100.0

Missing Cases: 18

TABLE 2

PERCENT OF RESPONDENTS WHO THINK STAFF DEVELOPMENT WILL BE RETAINED AFTER TITLE VII FUNDING STOPS

(IN ORDER TO BUILD CAPACITY OR INSTITUTIONALIZE PROJECT)

(DATA SOURCE: PROJECT DIRECTORS, N = 60)

Project Components; By Area of Bilingual Education Planning	Number Responding	Percent Indicating Retention of Plans
Staff Development		
Professional Inservice	54	69%
Paraprofessional Inservice	47	69
Formal Educational Opportunities for Professionals	45	31
Formal Educational Opportunities for Paraprofessionals	40	25

TABLE 3

DISTRIBUTION OF THE ESTIMATED NUMBERS OF STUDENTS SERVED PER PROJECT

Number of Students	Number of Projects 1978-1979	Percent of Total	Number of Projects 1979-1980	Percent of Total	Number of Projects 1980-1981	Percent of Total
1-100	54	9.5	43	7.9	56	10.7
101-200	115	20.3	88	16.3	86	16.4
201-300	99	17.5	90	16.7	102	19.5
301-400	81	14.3	72	13.3	80	15.3
401-500	54	9.5	48	8.9	43	8.2
501-600	42	7.4	38	7.0	35	6.7
601-700	20	3.5	26	4.8	21	4.0
701-800	19	3.4	19	3.5	18	3.4
801-900	18	3.2	14	2.6	9	1.7
901-1,000	6	1.1	9	1.7	17	3.2
1,001-1,500	29	5.1	20	3.7	19	3.6
1,501-2,000	15	2.6	10	1.9	10	1.9
2,001-3,000	7	1.2	9	1.7	5	1.0
3,001-8,300	6	1.1	4	.7	3	.6
Missing data	2	.4	50	9.3	20	3.8
Total	567	100.1	540	100.0	524	100.0

Table 4

Average Class Size
(Data Source: Classroom Teachers; N=277)

	All Classroom Teachers	Teachers in Self-Contained Classrooms	Teachers in Pull-Out or Departmentalized Teachers
Number of Students	Percent	Percent	Percent
0-10	1%	1%	3%
11-20	11	10	17
21-30	59	62	28
31-40	21	23	4
41-50	2	2	
51-60	<1	<1	
61-70	1	<1	
71-80	<1	<1	2
81-90	<1		3
91-100	1		11
101-200	2	<1	14
201-300	1		8
300+	1		11
mean	37.1	27.9	107.1
median	27.2	26.8	32.0
standard deviation	47.1	10.4	114.4
Number responding	273	239	32

Table 5

Title VII Students' Overall Academic Achievement in Relation to National Standards

(Data Source: Principal; N=118)

Student Group	Number Responding	Percent of Principals Reporting Students' Achievement				
		Below National Standards	Mixed but Mostly Below	Equal to National Standards	Mixed but Mostly Above	Above National Standards
All students in Title VII Program	112	53%	10%	19%	12%	6%
LEP students in Title VII Program	114	64	9	13	12	2
Non-Title VII students	113	37	10	35	4	14

Table 6

Approaches Used to Determine Program Entry
(Data Source: Project Director; N=60)

Approach	Number of Projects Using Approach	Mean	S.D.	Satisfaction with Approach--Percent			
				Not Satisfied (1)	Slightly Satisfied (2)	Moderately Satisfied (3)	Very Satisfied (4)
Published (commercial) tests	51	2.7	.9	12%	28%	41%	19%
Published tests Locally Translated	4	2.5	.9	17	17	66	
Locally developed tests	21	2.9	.9	6	22	45	27
Teacher observations/ratings	44	3.2	.9	7	7	46	40
Parent surveys	36	3.2	.8	2	17	41	40
Self reports	8	3.0	.8		24	48	28
SWRL placement system	1						100
Other	5						
Project director	1					100	
Parent input-not survey	1					100	
School	2	4.0					100
Parent teacher committee	1						100

Table 7

Approaches Used to Determine Program Exit
(Data Source: Project Director; N=60)

Approach	Number of Projects Using Approach	Mean	S.D.	Satisfaction with Approach--Percent			
				Not Satisfied (1)	Slightly Satisfied (2)	Moderately Satisfied (3)	Very Satisfied (4)
Published (commercial)tests	46	2.7	1.0	14%	23%	38%	25%
Published tests Locally Translated	2	3.6				39	61
Locally developed tests	16	3.3	1.0	12		37	51
Teacher observations/ratings	42	3.3	.8	3	12	41	44
Parent surveys	23	3.1	.8	4	15	51	30
Self reports	3	3.6	.6			41	59
SWRL placement system	2	3.2			39		61
Other	6						
Project Director	1						100
School	1			100			
Parent teacher committee	1						100
Student request	1						
Teacher aids	1						100
Students overall grades	1					100	

Table 8

Staff Characteristics: Types of Previous Teaching Experience Among Teachers

(Data Sources: Classroom Teachers; N=277, Resource Teachers; N=170, Teacher Aides; N=275)

	Percent of Classroom Teachers	Percent of Resource Teachers	Percent of Aides
Teacher in monolingual class	49%	53%	15%
Teacher aide in monolingual class	10	10	
Teacher in Bilingual Education class	26	44	
Teacher aide in Bilingual Education class	11	7	
Teacher or teacher aide in Bilingual Education class			7
Bilingual resource person	5	18	
ESL teacher	9	27	
Teacher in another country			14
Teacher-other			2
Specialist	8	28	
Reading	4	6	
Foreign language	<1	4	
Learning disability	0	6	
Other	4	12	
Commuinity liaison	6	10	26
Substitute teacher	4	1	
Tutor	3	0	
Native language teacher	3	6	
Foreign language teacher	2	2	
Resource teacher	2	3	
School administrator	2	2	
Program coordinator	2	2	
Instructional consultant	2	2	
Non-teaching Bilingual Education professional			1
Volunteer			4
Other	2	6	5
Mean*	1.7	2.4	
S.D.*	1.0	1.3	
Number Responding	234	160	275

*Number of Aides with such experiences too low for Mean and S.D. to be meaningful.

Table 9

Frequency of Topics Covered in Teacher Training Workshops and Topics in Which Teachers Desire More Training

(Data Sources: Classroom Teachers; N=277, Resource Teachers; N=170)

	Classroom Teachers		Resource Teachers	
	Percent Attending	Percent Desiring More Training	Percent Attending	Percent Desiring More Training
Teaching LEP	62%	78%	66%	67%
Curriculum development	75	54	68	59
Student assessment	53	58	73	50
Educational needs of students of different backgrounds	64	68	74	60
Materials for LEP	54	72	65	69
Use teacher aides	45	44	39	41
Teaching cultural awareness	63	56	62	50
Planning, coordination	67	54	67	57
Development of goals	78	48	76	42
Parent/community involvement	47	54	62	62
Classroom management	66	56	68	44
Using student experience	55	59	60	54
Understanding student psychology	55	64	51	66
Teaching critical thinking	46	74	48	73
Counseling students	28	53	36	64
Other	05		16	
Foreign language instruction	01		<01	
Special education	02		00	
Reading methods	04		05	
Linguistics	02		02	
ESL techniques	02		03	
Program evaluation			<01	

Table 10

Implementation of In-Service Program
(Data Source: Project Director; N=60)

Activity	Number Responding	Mean	S.D.	Percent of Project Directors Reporting			
				(1) Little/no	(2) Some	(3) Great	(4) Very Great
Principals and other LEA administrators participate in in-service training	60	2.0	.8	26%	56%	12%	6%
Language training provided in project schools-- To teachers:							
English	59	2.4	1.1	25	28	27	20
Native	60	2.2	.9	22	39	33	6
To aides:							
Native	60	2.5	1.0	15	36	31	18
Project helped project staff meet state requirements for teacher certification	59	2.9	.9	9	21	45	25
Project Provided Opportunities for career development for staff	60	3.2	.9	5	12	37	46

Table 11

Effectiveness of Title VII Project in Accomplishing its Overall Goals
(Data Source: See "Respondent" Column Below)

Respondent	Number Responding	Mean	S.D.	Respondent's Perceptions of Effectiveness: Ineffective	Slightly Effective	Moderately Effective	Very Effective
Superintendent*	58	3.1	.8		28%	38%	34%
Federal Programs Coordinator	56	3.5	.7		6	40	54
Project Director*	59	3.3	.7		13	43	44
PAC Chairperson	58	3.8	.4			22	88
Teacher:							
Classroom	269	3.3	.8	2	14	38	46
Resource	166	3.3	.7	1	15	36	48
Teacher aide	256	3.6	.7	3	3	27	67

*Question phrased: "little or no extent," "some extent," "great extent," "very great extent."

Table 12

Percent of Students Who are Able to Function Effectively in an All English Speaking Classroom When They Leave Title VII (Data Source: Project Director; N=60)

Percent of Students	Percent of Project Directors
None	%
1-19%	5
20-49%	9
50-79%	36
80-100%	50

Number responding: 47

Table 13

Project Directors' Perception of Students' Ability to Function Effectively in an All English-Speaking Classroom When They Leave Title VII

(Data Source: Project Director; N=60)

Area	Number Responding	Mean	S.D.	Percent Responding		
				Low	Median	High
Speaking	47	2.4	.6	8%	44%	48%
Listening comprehension	47	2.3	.6	5	57	38
Reading	48	2.3	.6	10	51	39
Writing	43	2.2	.7	14	52	34
Subject matter knowledge	50	2.3	.6	10	51	39

Table 14

Future of Bilingual Education Program if Title VII Funding is Reduced or Discontinued
(Data Source: Superintendent; N=60, Federal Programs Coordinator; N=60, Principal; N=60)

Respondent	Number Responding	Be Dropped	Be Reduced	Remain Same	Be Expanded
Superintendent	60	7%	69%	20%	4%
Federal Programs Coordinator	56	4	78	17	2
Principal	117	14	58	26	2

Table 15

Future of Services to LEP Students if Title VII Funding Program is Reduced/Discontinued
(Data Sources: Superintendent; N=60, Federal Programs Coordinator; N=60)

Response	REDUCED		DISCONTINUED	
	Superintendent	Federal Programs Coordinator	Superintendent	Federal Programs Coordinator
	Percent of Cases Responding	Percent of Cases Responding	Percent of Cases Responding	Percent of Cases Responding
Reduce level of service	82%	71%	52%	%
Fund services from other sources	11	4	24	16
Decrease parent involvement		2		
Reduce academic performance		10		
Change classroom organization		4		
Decrease teaching staff		2		
Reduce services or serve fewer students		24		51
Drop out rate increase at JHS/HS level			24	
Fewer Teachers				10
Number responding:	41	40	4	11

Table 16

Ways in which Respondents Believe Their Bilingual Education Programs Will Be Reduced if Title VII Funding is Reduced or Discontinued

(Data Source: Superintendent; N=60, Federal Programs Coordinator; N=60, Principal; N=60)

Response	Superintendent Percent of Cases Responding	Federal Programs Coordinator Percent of Cases Responding	Principal Percent of Cases Responding
Fewer Limited English Proficient (LEP) Students	28%	29%	15%
Fewer English proficient students	28	25	18
Fewer grades	27	28	8
Fewer bilingual teachers	59	43	26
Fewer teacher aides	97	84	83
Fewer bilingual resource teachers	68	65	44
Fewer instructional materials	62	63	58
Fewer inservice training courses	71	78	68
Fewer hours of instruction using first language	65	50	44
Fewer languages	16	22	19
Shift from "in-class" to "pull-out" program	35	26	22
Other		2	2
Number Responding:	41	43	67

Table 17

Most Important Things Superintendents Wish to Say About Their Bilingual Education Programs

(Data Source: Superintendent; N=60)

Response	Percent of Cases Responding
Title VII and bilingual education in general are good and provide needed services	48%
Outside funding is essential for bilingual education program to continue	29
Title VII has increased children's self concept, identity, self-worth, and attitude toward school	8
Bilingual education is good as long as the emphasis is on transitional type programs	7
Need more trained instructional staff	6
Title VII has sensitized teachers to needs of LEPs	5
The Federal Government should get out of bilingual education unless it pays 100% of costs	3
Title VII has provided otherwise unavailable materials and instructional approaches	3
Title of Title VII (Bilingual Education Act) should be changed--is too inflammatory	3
English as a Second Language programs are preferable to bilingual education	2
More money should be spent on the programs and not on so many federal evaluations	2
There is some resentment of special services provided to LEPs and their teachers (by reg. teachers)	1
Federal level doesn't fully recognize that LEAs need to adapt program to local conditions	1

Number Responding: 60

Table 18

Viewpoints Held by Community Groups about Which Congress Should be Told
(Date Source: Superintendent; N=60)

Response	Percent of Cases Responding
Local language group supports bilingual education program	22%
Conflicting viewpoints toward bilingual education exist within the community	18
Local community supports bilingual education	16
Local community supports transitional education	16
Support exists for more local control over the bilingual education program	12
Local language group supports use of transitional approach	8
Conflicting viewpoints are held by different, identified groups within the community	8
Local community against bilingual education	6
Local language group supports use of maintenance approach	5
Local community against maintenance approach	5
Local community supports ESL approach	3
Local community agrees that federal money is needed to support the project	2

Number Responding: 44

Table 19

Changes Which Need to be Made in Title VII Basic Bilingual Education Program Legislation (Data Source: Superintendent; N=60)

Response	Percent of Cases Responding
Greater provision for local projects to reflect local community standards	30%
No change should be made	16
Clarify definitions of transitional and maintenance bilingual education	14
Provision for more bilingual staff training under Title VII	13
More funding needed	9
Keep Title VII as is	6
Lengthen funding cycle for planning purposes	4
Specify the intent of bilingual legislation	4
More consideration of how Federal rules and regulations correspond to state bilingual rules and regulations	4
Regulations should specify what ESL or bilingual education model LEAs should use	4
Earlier funding of approved projects	4
Schools need to address culturally-related differences among students	4
No changes in amount of funding once award made	4
Bilingual education should be replaced with ESL	4
Reduce number of dissemination centers for Title VII	3
Regulations should specify what ESL or bilingual education model LEAs should use	4
More provision for second language instruction to monolingual English speakers	2
Greater funding for research and evaluation	2

Number Responding: 46

Table 20

Recommendation/Comments on the Title VII Rules and Regulations (Date Source: Superintendent; N=60)

Response	Percent of Cases Responding
No change should be made in them	41%
Greater provision for local projects to reflect local community needs and standards	22
Simplify the letter of the rules and regulations (less complexity)	7
Reduce the number of regulations	6
Reprioritize areas for funding (e.g., less staff training, more staff training)	6
Clarify the language of the rules and regulations (write in plain English)	5
Too much authority given to PAC	4
Title VII rules and regulations need to be made compatible with Civil Rights rules and regulations	4
Need penalties for non-compliance with regulations	3
Lengthen funding cycle to allow for better planning	2
Focus on more service oriented programs, fewer demonstration programs	2
Lengthen time period for application process	2
Renew emphasis on transition type program	2
Need better balance of input (conservative and liberal) into rules and regulations (too liberal)	2
Do not have quotas for Title VII	2
Eliminate all penalties for non-compliance with regulations	2

Number Responding: 51

Table 21

Ways Title VII Has Affected School System's Capacity-Building Efforts
(Data Source: Superintendent; N=60)

Response	Percent of Cases Responding
Assistance in staff training and development	21%
Procurement of materials and resources	18
No effect	18
General positive effect	14
Complex rules and regulations have had a negative effect on capacity building	12
Helped institutionalize bilingual education in the LEA	11
Able to acquire new qualified staff	10
Program would not continue without current legislation	10
Increased awareness and sensitivity of public to problems of LEP students	9
Provided seed money	5
Negative effect on regular staff (threat to job security)	3
Has improved integration and coordination of programs for LEPs	3

Number Responding: 53

APPENDIX 7

MEANS FOR MULTIPLE SUB-GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES" (PROJECT DIRECTOR MAIL SURVEY, PROJECT DIRECTOR INTERVIEW, TEACHER INTERVIEW)

APPENDIX 7

MEANS FOR MULTIPLE SUB-GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES"
MEANS ON VARIABLES OBTAINED THROUGH THE PROJECT DIRECTOR MAIL SURVEY

	PDM Type Mean					PD[illegible] Type Mean						Teacher Type Mean					
	1	2	3	4	Groupings	1	2	3	4	5	Groupings	1	2	3	4	5	Groupings
Changes in Service																	
Number of LEP	2.0	2.0	1.2	2.5	1,2,4:3												
Intensity/Amount of Instruction	3.0	3.0	2.9	2.3	1,2,3:4	2.9	2.0	3.0	2.2	3.0	1,2,3,5:4	3.0	2.9	.0	2.9	2.4	2,4:5
Number of Subject Areas Taught	2.5	2.9	2.5	2.2	2:1,3,4							2.0	2.7	.0	2.7	2.4	4:1
Instructional Materials and Equipment	3.0	3.0	3.0	2.9	1,2,3:4	3.0	3.0	3.0	2.6	3.0							
Student Assessment/Diagnostic Evaluation Services	2.6	2.0	3.0	2.7	3:1	2.0	2.9	2.5	2.0	2.0	1,2,5:4						
Home/School Liaison Services												2.5	2.7	2.0	2.9	2.5	
Resource Specialists	2.0	2.0	2.9	2.2	1,2,3:4												
Aides	3.0	2.9	2.9	1.0	1,2,3:4												
Consultant Services	2.0	2.9	2.9	2.0	1,2,3:4							2.3	2.0	2.0	2.0	3.0	
Use of Both Languages for Instruction																	
Math	.1	.0	.9	.7	2,3,4:1												
Reading	.2	.9	.6	.7	2:1,3/ 3,4:1												
Science	.2	.0	.7	.0	2,3,4:1												
Social Studies	.2	.0	.0	.0	2,3,4:1												
Inservice Percent																	
Teachers						87.6	88.5	84.0	32.4	92.6	1,2,3,5:4	95.0	98.6	100.0	98.7	45.1	1,2,4:5
Aides																	
Increase																	
Type Change	1.0	.9	1.0	.6	1,3:4							1.0	1.0	.0	.0	1.0	1,2,4,5:3
Quality																	
More Staff						.9	.0	.4	.0	.7	1:3						
P.D. Involvement																	
Evaluation						353.0	390.3	390.7	293.6	205.7	1,2,3:5	375.0	421.0	500.0	314.2	329.4	
Parents/Community																	
Exit Concerns						203.0	205.0	500.0	179.3	177.4	3:1,2,4,5						
Approach Language to Teach Initial Reading																	
Both Languages	.3	.0	.2	.3	1:2	.0	.2	.6	.0	.0	3,5:1,2,4	.0	.3	.0	.1	.0	1:4,5
Dominant Language	.1	.5	.4	.3	2:1	.5	.4	.0	.0	.0		-.0	.6	1.0	.3	.1	
English																	
Varies						.3	.2	.2	.0	.2	4:2						
How Variation in Proficiency is Handled																	
Subgrouping												1.0	1.0	.0	.9	.9	1,2,4,5:3
Auxiliary Staff												1.0	.0	.0	.0	1.0	1,5:3
Team Teaching	.5	.4	.7	.2	3:4												
Differentiated Staffing						.6	.2	.4	.0	.4	1:2						
Peer Tutoring																	
Below Grade Level Assignment	.3	.7	.2	.2	2:3,4												

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APPENDIX 7

MEANS FOR MULTIPLE SUB-GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES"
MEANS ON VARIABLES OBTAINED THROUGH THE PROJECT DIRECTOR INTERVIEW
(continued)

	PDI Type Mean						Teacher Type Mean						PDM Type Mean				
	1	2	3	4	5	Groupings	1	2	3	4	5	Groupings	1	2	3	4	Groupings
Use of English and Native Language																	
Two Languages Not Used During Same Period																	
First Half of Period in One Language; Second In Other																	
Concurrent Use	.2	.3	.2	.0	.7	4:1	.0	.2	.0	.3	.0	5:1,2,3,4					
One Language for Teaching, Other For Preview and Review																	
Language Used to Teach LEP Non-Readers to Read																	
Native Language	.7	.5	.0	.2	.0	1:3	.6	.8	1.0	.5	.2	3:5					
English	.1	.5	.6	.5	.0	2:1											
Varies																	
Both	-.0	.0	1.0	.0	.3	3:1,2,4,5/ 5:1,2,4											
Areas of Project Director Control																	
Placement of Criteria/Practice																	
Class Scheduling	2.1	2.6	1.7	1.0	2.4	3:1,3,4											
Amount of Lesson Planning Time Available	1.0	3.0	3.4	2.2	1.5	3:1											
Amount of Administrative Time Available	2.5	3.6	3.4	3.5	1.0	1,2,3,4:5											
Provision of Instructional Facilities	2.0	3.0	1.6	1.1	1.3	2:1,3,4,5											
Coordination of Instruction	3.0	3.5	3.6	2.3	2.5	3:4											
Teacher Student Ratios	1.4	2.4	2.2	1.3	2.5												
Evaluation of Teachers	1.4	2.9	2.5	2.0	1.2	2:1											
Direction Supervision	3.5	3.6	3.6	3.1	1.5	1,2,3,4:5											
Special Disciplinary Action With Students	1.5	2.1	1.9	1.0	1.0												
Materials and Supplies																	
Staff Development and Train																	
Parent/Community Involvement Plans																	
Student Support Services	2.3	3.4	3.6	1.7	3.7	2,5:1,4											
Information Dissemination							3.3	3.9	4.0	3.6	4.0		3.0	3.6	3.9	3.3	2:4
Office Operation																	
Project Evaluation																	
School Supervision																	
Project Operation							1.3	3.1	2.1	2.0	2.0	2:1					
Project Administrative Staff																	
Project Teaching Staff																	
Project Evaluation																	
Active Involvement in Program Implementation																	
Superintendent's Office							3.0	3.6	3.3	3.4	2.3	2:4,5					
Principals																	
Teachers																	
Bilingual Parents/Community																	
Inservice Training																	
Administrator Participation																	
Provision of English Language Training to Teachers	2.1	2.2	1.5	1.2	2.4	1:2,3,4											
Provision of Native Language Training to Teachers	3.0	2.0	1.9	1.0	1.4	1:2											
Provision of English Language Training to Aides	3.1	2.4	1.5	1.7	2.7	1:3,4											
Assistant in Meeting Certification Requirements																	
Career Development Opportunities	3.3	3.6	2.5	2.0	3.7	3:3											
Prevalency of Pattern																	
Solo Teacher	1.5	2.5	1.0	3.7	2.3	3:1/ 3:1,2,3											
Teacher/Teacher Team	2.0	1.4	2.0	2.7	1.7	1:2											
Teacher/Team Aide	4.6	3.5	4.3	2.5	3.4	1:2,4/3:4											
Teacher/Volunteer																	
Teacher/Student Teacher																	

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APPENDIX 7

MEANS FOR MULTIPLE SUB-GROUPS REPRESENTING "DISTINCTLY DIFFERENT APPROACHES" MEANS ON VARIABLES OBTAINED THROUGH THE TEACHER INTERVIEW (continued)

	Teacher Type Mean						PBI Type Mean					
	1	2	3	4	5	Groupings	1	2	3	4	5	Groupings
Percent of Time Native Language Used in Instruction												
English Reading and Language Arts	66.0	10.9	.7	5.9	16.3	1:2,3,4,5						
English as a Second Language	24.5	12.2	1.0	6.1	43.0	5:2,3,4						
Native Language Reading and Language Arts	91.4	95.5	100.0	92.9	78.4	3:5						
Math	56.2	60.7	86.5	14.0	16.7	1,2:4,5/ 3:1,2,4,5						
Social Studies	61.3	60.3	85.0	12.4	23.0	1:4/2:4,5/ 3:1,2,4,5						
Science	62.0	60.4	73.0	12.1	16.1	2,3:4,5						
Use of Pull-Out												
English Reading and Language Arts												
English as a Second Language												
Native Language Reading and Language Arts												
Math							.0	.1	.4	.0	.1	3:1,2
Social Studies							.0	.1	.4	.0	.1	3:1,2
Science												
Use of Aide												
English Reading and Language Arts												
English as a Second Language												
Native Language Reading and Language Arts												
Math												
Social Studies												
Science												
Percent of Time Native Language Used in Reading and Language Arts	75.4	41.0	66.6	36.8	32.7	1:2,4,5/ 3:4,5						
Percent of Reading and Language Arts Time Devoted to Native Language Reading and Language Arts	53.3	30.2	66.1	37.6	27.6	3:2,4,5						
Teacher Characteristics												
BE Certification	1.5	1.0	1.0	.4	.4	1:4/2:4,5						
Bilingualism	1.0	.9	.9	.7	.6							
BE Experience												
BE Training												
Implementation of Plans for Materials												
Workshops												
Satisfaction												
Frequency												
Management Effectiveness												
Factors Affecting Implementation												
District												
Community												
School												
Project												
Average												
Goal Accomplishment												
Extent of Impact												
Spoken English	3.0	3.2	3.5	2.8	2.2	3:5						
Cultural Awareness												
Academic Skills												
English Language Reading Skills												
Native Language Skills	3.0	3.3	3.6	2.8	2.5							
Self Image												
Attitude Toward School	3.4	3.5	3.6	3.4	2.8	2:5						

	PMD Type Mean				
	1	2	3	4	Groupings
Percent of Time Native Language Used in Instruction					
English Reading and Language Arts					
English as a Second Language					
Native Language Reading and Language Arts					
Math					
Social Studies					
Science					
Percent Pull-Out					
English Reading and Language Arts					
English as a Second Language					
Native Language Reading and Language Arts					
Math					
Social Studies					
Science					
Use of Aide					
English Reading and Language Arts	.2	.3	.6	.5	3:1
English as a Second Language					
Native Language Reading and Language Arts					
Math					
Social Studies					
Science					
Percent of Time Native Language Used in Reading and Language Arts					
Percent of Reading and Language Arts Time Devoted to Native Language Reading and Language Arts					
Teacher Characteristics					
BE Certification					
Bilingualism					
BE Experience					
BE Training					
Implementation of Plans for Materials					
Workshops					
Satisfaction					
Frequency					
Management Effectiveness					
Factors Affecting Implementation					
District	360.0	193.7	343.7	226.5	1,3:2
Community					
School					
Project					
Average					
Goal Accomplishment					
Extent of Impact					
Spoken English					
Cultural Awareness					
Academic Skills					
English Language Reading Skills					
Native Language Skills					
Self Image					
Attitude Toward School					

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APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES (TEACHERS, PROJECT DIRECTORS)

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES

TEACHERS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
INSTRUCTIONAL COMPONENT				
Use of Pull-Out for instruction				
English RLA				
Project size (s/m/l)	.17	.03	.02	-0.17
ESL				
Training or certification	.59	.35	.35	-0.43
Project age (new/old)	.63	.40	.39	-0.23
Use of aide	.65	.42	.41	-0.16
Native Language RLA				
Training (no/yes)	.59	.35	.34	-0.61
Project age (new/old)	.62	.39	.38	-0.20
Management (effectiveness)	.65	.42	.40	0.18
Math				
Training or certification	.26	.07	.06	-0.31
Management (effectiveness)	.31	.09	.08	0.17
Social Studies				
Training (no/yes)	.26	.07	.06	-0.30
Language (Other/Spanish)	.31	.10	.09	0.18
Science				
Training or certification	.23	.05	.05	-0.35
Language (Other/Spanish)	.36	.13	.12	0.31
Project size (s/m/l)	.41	.17	.15	0.23
Use of aides	.44	.19	.17	-0.19
Cultural Enrichment	--	--	--	--
Average				
Training or certification	.38	.15	.14	-0.40
Management (effectiveness)	.42	.18	.17	0.22
Use of aides	.44	.20	.18	-0.14

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES
(Continued)

TEACHERS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent Independent				
Use of aide for instruction				
English RLA				
Language (#:1-4)	.36	.13	.13	-0.31
Project size (s/m/l)	.43	.19	.18	0.24
ESL				
Training or certification	.48	.23	.22	0.37
Class size	.51	.26	.25	0.21
Language (#:1-4)	.53	.28	.27	-0.16
Native Language RLA				
Language (#:1-4)	.23	.05	.05	-0.23
Math				
Training or certification	.47	.22	.22	-0.37
Language (#:1-4)	.50	.25	.24	-0.16
Management (effectiveness)	.52	.27	.26	0.15
Social Studies				
Management (effectiveness)	.23	.05	.05	0.20
Language (#:1-4)	.28	.08	.07	-0.16
Science				
Training (no/yes)	.26	.07	.06	0.17
Factors (school)	.34	.11	.10	0.23
Language (#:1-4)	.37	.14	.12	-0.18
Class size	.40	.16	.14	0.15
Cultural Enrichment				
Language (#:1-4)	.26	.07	.06	0.84
Language (Other/Spanish)	.37	.14	.12	-0.69
Training or certification	.47	.23	.19	0.30
Average				
Training or certification	.37	.14	.14	0.25
Language (#:1-4)	.44	.20	.19	-0.46
Factors (school)	.46	.21	.20	0.15
Project size (s/m/l)	.48	.23	.22	0.16
Language (Other/Spanish)	.50	.25	.23	-0.26

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES
(Continued)

TEACHERS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
Use of Native Language for instruction:				
English RLA				
Training or certification	.41	.17	.17	0.41
Language (#:1-4)	.51	.26	.25	0.37
Class size	.56	.31	.30	0.24
Project age (new/old)	.58	.33	.31	0.21
Factors (school)	.59	.35	.33	0.14
ESL				
Language (#:1-4)	.19	.04	.03	0.19
Native Language RLA				
Project age (new/old)	.23	.05	.04	0.21
Class size	.29	.09	.07	-0.21
Training (no/yes)	.34	.12	.10	0.17
Math				
Training (no/yes)	.41	.17	.16	0.33
Class size	.44	.19	.19	0.17
Language (Other/Spanish)	.47	.22	.20	0.16
Social Studies				
Training or certification	.42	.17	.17	0.41
Language (#:1-4)	.47	.22	.21	-0.29
Project age (new/old)	.50	.25	.24	-0.21
Science				
Training or certification	.51	.26	.26	0.46
Language (#:1-4)	.56	.31	.30	-0.28
Factors (project)	.58	.33	.32	0.13
Project age (new/old)	.50	.35	.33	-0.15
Cultural Enrichment				
Training or certification	.45	.20	.19.	0.45
Average				
Training or certification	.61	.37	.36	0.53
Language (Other/Spanish)	.62	.39	.38	0.16
Factors (project)	.63	.40	.39	0.13

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES
(Continued)

TEACHERS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
Implementation of plans for materials				
Language (#:1-4)	.30	.09	.09	-0.27
Management (effectiveness)	.38	.14	.13	0.37
Factors (project)	.45	.20	.19	-0.26
Training or certification	.48	.23	.20	-0.17
STAFF DEVELOPMENT COMPONENT				
Training: (no/yes)				
Language (#:1-4)	.36	.13	.12	-0.43
Project size (s/m/l)	.44	.19	.19	0.27
Management (effectiveness)	.50	.25	.24	0.21
Language (Other/Spanish)	.52	.27	.26	-0.28
Project age (new/old)	.54	.29	.27	0.15
Factors (community)	.55	.30	.28	0.13
Training: hours				
Project size (s/m/l)	.25	.06	.06	0.22
Class size	.32	.10	.09	0.21
Training or certification				
Project size (s/m/l)	.42	.18	.17	0.35
Management (effectiveness)	.51	.26	.26	0.20
Project age (new/old)	.56	.31	.30	0.19
Language (Other/Spanish)	.58	.33	.32	0.16
Factors (community)	.59	.35	.33	0.13

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES (Continued)

PROJECT DIRECTORS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
INSTRUCTIONAL COMPONENT				
Use of both languages across (none/some/all) grades				
Math				
Factors (project)	.25	.06	.06	0.21
PD involvement (evaluation)	.32	.10	.10	0.18
PAC work on application	.36	.13	.12	0.17
Equipment (adequacy)	.39	.15	.13	0.14
Reading				
OBEMLA (helpfulness)	.22	.05	.04	0.14
PD involvement (evaluation)	.27	.08	.07	0.16
Factors (project)	.31	.10	.08	0.12
PAC work on application	.34	.11	.10	0.16
PD years as BE teacher	.37	.14	.12	0.16
Equipment (adequacy)	.39	.15	.13	0.13
Science				
OBEMLA (helpfulness)	.25	.06	.06	0.21
Equipment (adequacy)	.31	.09	.09	0.17
PAC work on application	.35	.12	.11	0.17
SEA (helpfulness)	.38	.14	.12	0.13
Social studies				
OBEMLA (helpfulness)	.28	.08	.07	0.23
Equipment (adequacy)	.34	.11	.11	0.20
PAC work on application	.37	.14	.12	0.16
Project age (new/old)	.40	.16	.14	0.16
SEA (helpfulness)	.42	.18	.16	0.15
Other				
Factors (project)	.26	.07	.06	0.25
PD involvement (evaluation)	.30	.09	.08	0.16
Average				
OBEMLA (helpfulness)	.28	.08	.07	0.26
PAC work on applications	.32	.10	.09	0.15
Equipment (adequacy)	.35	.12	.11	0.15

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES
(Continued)

PROJECT DIRECTORS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
Use of English-only across (none/some/all) grades				
Math				
Project size (s/m/l)	.29	.09	.08	-0.27
PD involvement (evaluation)	.36	.13	.12	-0.21
Factors (school)	.40	.16	.15	-0.15
PAC work on application	.42	.18	.16	-0.14
Reading				
Factors (project)	.27	.07	.07	-0.19
PD involvement (parents)	.33	.11	.10	-0.16
Instruc. materials (adequacy)	.37	.14	.13	-0.18
PAC work on application	.39	.16	.14	-0.13
Science				
OBEMLA (helpfulness)	.25	.06	.06	-0.16
PD involvement (parents)	.33	.11	.10	-0.23
Factors (state)	.37	.14	.12	-0.17
PD (years)	.40	.16	.14	-0.15
Social Studies				
OBEMLA (helpfulness)	.23	.05	.05	-0.16
Project age (new/old)	.29	.09	.08	-0.18
SEA (helpfulness)	.34	.12	.11	-0.18
PD years	.37	.13	.12	-0.14
Other				
PD involvement (parents)	.29	.08	.08	-0.29
Factors (project)	.34	.12	.11	-0.18
Inservice (proportion aides)	.37	.14	.13	0.14
Average				
PD involvement (parents)	.27	.07	.07	-0.26
Instruc. materials (adequacy)	.33	.11	.10	-0.19

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES (Continued)

PROJECT DIRECTORS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent Independent				
Objectives				
SEA (helpfulness)	.25	.06	.06	0.26
Inservice (proportion aides)	.30	.09	.08	0.17
Entry/exit				
PD involvement (review of student achievement)	.18	.03	.03	0.18
Factors (school)	.24	.06	.05	0.15
Approach				
SEA (helpfulness)	.19	.04	.03	0.20
Inservice (proportion aides)	.26	.07	.06	0.17
Curriculum				
Factors (school)	.31	.10	.09	0.30
PAC work on application	.35	.12	.11	0.17
STAFF DEVELOPOMENT COMPONENT				
Overall Implementation of Plans				
PD involvement (parents)	.22	.05	.05	0.21
Project size (s/m/l)	.28	.08	.07	0.15
BESC (effectiveness)	.30	.09	.08	0.13
Inservice training (proportion of teachers and aides - in radians)				
PD involvement (parents)	.29	.08	.08	0.23
PAC work on application	.36	.13	.13	0.21
Instructional materials (adequacy)	.39	.15	.14	0.15

APPENDIX 8

RELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES (Continued)

PROJECT DIRECTORS

Variable	Multiple R	R Square	Adjusted R Square	Beta
Dependent				
Independent				
MANAGEMENT COMPONENT				
Evaluation				
Factors (school)	.25	.06	.06	0.19
Inservice (proportion aides)	.31	.09	.08	0.17
SEA (helpfulness)	.34	.12	.10	0.17
PD years	.37	.14	.12	0.15
Staffing				
Reporting and Dissemination				
PAC work on application	.25	.06	.06	0.23
Factors (district)	.30	.09	.08	0.17
Objectives				
Factors (district)	.22	.05	.05	0.22
Materials				
Inservice (proportion aides)	.20	.04	.03	0.20
SEA	.24	.06	.05	0.15
PARENT AND COMMUNITY INVOLVEMENT COMPONENT				
Overall implementation of plans				
EDAC materials (satisfactory)	.18	.03	.03	0.18

APPENDIX 9

WEIGHTING OF DATA AND NONRESPONSE ADJUSTMENTS

APPENDIX 9

WEIGHTING OF DATA AND NONRESPONSE ADJUSTMENTS

9.1 Overview of Appendix

This technical appendix discusses the weighting and estimation procedures used in the preparation of: (a) national-level estimates of project information, (b) selected sub-group comparisons of projects serving grades K-6 with those serving grades 7-12 and (c) comparisons of information supplied by various types of respondents, such as project directors and teachers. More specifically, this Appendix presents details about:

- Weighting of data due to cases being drawn with unequal probabilities of selection;
- Adjustments for non-response used with both types of mail survey questionnaires;
- Adjustments for respondent unavailability which occurred during the site visits to the 60 sampled projects;
- Adjustments for data unavailability due to the unavailability of first year or initial funding applications for all 60 projects during the Study's data collection and analysis phases; and
- Approaches used to deal with item nonresponse.

9.2 Overall Characteristics of Weighting Factors

The weighting factors used in this Study arose from the need to: (a) obtain and present comprehensive and credible information about all Basic projects, as well as specified sub-groups of interest (such as those which focus on the elementary grades), and (b) provide descriptive and correlational estimates of population parameters and test or verify the precision of these estimates.

In general, stratified probability sampling of projects was considered the most useful for achieving these purposes. Other approaches for selecting projects such as simple random sampling and purposive selection were not viewed as meeting the Study's needs. Such techniques could not be depended upon to assure that statistically representative, fully credible, or tractable measures of the precision of parameter and correlational/regression estimates could be computed. The stratification approaches used in the study assured that certain sub-groups of projects were sufficiently represented so that across-group comparisons could be made.

To put the weighting factors in context, the sampling design consisted of one in which the overall probability of selecting respondents was directly affected by a number of considerations, which include the following:

- The differential sampling rates used with projects, i.e., projects were not selected with equal probability;
- The number of target schools, and how many of these were sampled within an already sampled project serving grades K-6;
- The number of teachers in a particular grade range (K, 1,2-3, or 4-6), and how many of these were sampled within each grade range;
- Whether or not an aide was assigned to a sampled teacher, or was part of a pool of aides working with that grade range; and
- The number of resource teachers working with a target school and project, and whether resource teachers were sampled or selected with probability of certainty.

In general, the weighting factors provided mathematically unbiased estimates of the values of Study variables that would have been obtained if all respondents or projects had indeed been surveyed. This is true of: (a) mail survey data for which not all members of the universe of funded projects responded, (b) projects included in the Study on a probability sampling basis and (c) particular types of district or project personnel also included on a probability sampling basis. In addition, all weights were retained in their computed form, which generally consisted of a fractional or non-integer format. This meant that the computed estimates were less subject to rounding error than if the weights had been converted to integer weights simply for convenience.

In the first phase of the two-phase sampling design, all funded projects were sent two mail survey instruments. Since a census approach was being used, probability sampling techniques did not apply. Thus, if 100% response to each instrument had been obtained, all data from the Project Director and Parent Advisory Committee Chairperson instruments would have received a weight of 1.0. However, since a 100% response rate was not achieved, adjustments for non-response were made. The overall adjustment also took into account the fact that each of the project directors administering two or three projects provided information on a single survey form, rather than using a form for each project. A small number of project directors fell into this category. (See Section A.9.3 for details of how weights were adjusted for this factor.)

In the Study's second phase, a sample of 60 projects was selected for site visits, and extensive data were collected from various project and district level staff. Parameter estimates were developed by applying weighting factors to sample data. An initial weight was computed using the reciprocal of the probability of selection or sampling fraction ($P_i=1/N_i$) of a given respondent or project. These weights were then adjusted for respondent unavailability as needed, an accepted procedure in the field (NCHS, 1978).*

Table A9.1 presents the mean adjusted weights for each Study data source or sampling unit. However, it should be remembered that each sampling unit was drawn with a specific probability and adjusted as necessary. The reciprocal of that probability was used as the weighting factor, not the mean weights shown in the table. Nonetheless, Table A9.1, and other tables like it in this Appendix, are included to indicate the average weighting factor used with particular types of sampling units. Sampling fractions did vary across the strata used as the basis for

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*National Center for Health Statistics. National Survey of Family Growth, Cycle I: Sample Design, Estimation Procedures, and Variance Estimation. (DHEW Publication No. (PHS) 78-1350). Hyattsville, MD: National Center for Health Statistics, 1978.

TABLE A9.1
MEANS OVERALL WEIGHTS BY STUDY DATA SOURCE

Type of Form	Number of Forms Obtained	Mean Overall Weights*
Project Director Mail Questionnaire	378	1.387*
Parent Advisory Committee Chairperson Mail Questionnaire	285	1.839*
Project Director Mail Questionnaire (from visited sites)	56	7.161*
Parent Advisory Committee Chairperson Mail Questionnaire (from visited sites)	45	8.911*
LEA Superintendent Interview	59	6.797*
LEA Federal Program Coordinator Interview	59	6.797*
Parent Advisory Committee Chairperson Interview	56	7.161*
Project Director Interview	60	6.683
School Principal Interview	118	13.181
Teacher Interview	447	23.355
Classroom Teachers	277	29.371
Resource Teachers	170	13.554
Classroom Skills Inventory (from classroom teachers)	266	30.108
Teacher Aide Interview	275	29.976
Document Review Form**	60	6.683
Plans and Objectives Data Recording Form**	47	8.532*

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*Includes an adjustment for nonresponse.

**One form per project was to be completed for each of the 60 projects visited; see section A9.4.6 for details of how adjustments for nonresponse were made.

selecting projects (one of the sampling stages). Thus, the overall weighting factor applied to an individual sampling unit also varied somewhat across cases.

Because of the nature of the Study, it was not possible to use alternative methods of expansion such as post-stratified estimators. That is, sufficiently accurate and current external (to the Study) statistics did not exist for adjusting Study estimates and thereby obtaining relatively smaller standard errors. In the present situation, no such body of information could be reasonably applied. Thus, the type of unbiased linear inflation estimator used in the Study was viewed as the more practical and efficient approach.

9.3 Weighting Factors Used With The Project Director Mail Questionnaire

A total of 378 returns were received after all follow-up had been completed. Rather than directly inflating the number of returns by the ratio of 524 (i.e., all projects) to 378 (the number of returns), more precise methods were used. The 378 returns represented 402 projects. The returns included questionnaires completed by project directors administering one project (n=355). However, to reduce the respondent burden, those administering two projects (n=22), or three projects (n=1) also completed one questionnaire. Thus, a weighting factor (of 1, 2 or 3) was used to adjust for this fact.

A series of cross tabulations and discriminant function analyses indicated that the project background characteristics (data abstracted from funding applications) most associated with whether or not the questionnaires were returned were: (1) whether or not the project served the grades K-6 and (2) the geographic region* of the United States. The weighting factor used was created from the ratio of the number of projects in the universe to the number of returned forms, within each cell of the matrix created by the 12 combinations of 6 geographic regions and 2 grade ranges. (These grade ranges were: K-6, and Pre K or 7-12). These cell-level ratios were then multiplied by whether the returned project form represented 1, 2, or 3 actual operating projects. Thus, all projects within a cell had the same weight; table A9.2 presents these weights. This method proved to be a fairly systematic and accurate way of deriving inflation factors, since it was based on response rates from projects with similar characteristics. This method was also more precise than that of using a single ratio based on all returns, i.e., the ratio of (N_T/n_t). Using the latter method would have substantially underweighted some projects and overweighted others.

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*To form this latter variable, the 10 federal regions were regrouped into five regions, based on what linguistic version of Spanish was being used.

9.4 Weighting Factors Used With The Parent Advisory Committee (PAC) Chairperson Mail Questionnaire

A similar method to that described above was used with the PAC mail questionnaire. The results of cross tabulations and discriminant functions indicated that a single variable appeared to be most associated with whether or not the mail survey instrument was returned. This variable was whether or not the project served the K-6 grade range, and was used as the adjustment factor. The overall expansion factor used for inflating data to the universe level was the product of: (1) the ratio of the total number of projects to the number of responding projects, for each of the two groups (a) K-6 grade range projects and (b) projects serving other grade ranges, multiplied by (2) the number of projects represented by the particular responding form. Of the 285 returned forms, 256 were completed by chairpersons associated with one project, 27 forms by chairpersons associated with two projects, and 2 forms by chairpersons associated with three. The 285 returned forms therefore represented a total of 316 projects.

9.5 Weighting Factors Used with Projects Sampled from the Sub-Universe of K-6 Projects

A total of 401 projects served at least one grade from the K-6 grade range during the 1980-81 school year. Probability sampling was used to select 60 projects from among the 401 projects, and where warranted, to select certain types of respondents within each sampled project. Each of the relevant expansion factors is discussed below.

TABLE A9.2

WEIGHTING FACTORS USED WITH PROJECT DIRECTOR MAIL QUESTIONNAIRE RETURNS BY REGION AND GRADE RANGE SERVED

	GRADE RANGE		
	PreK, 7-12 Only	K-6	Overall
Federal Regions**			
1, 2 and 3	1.581	1.521	1.544
4	1.488	1.170	1.200
5, 7 and 8	1.240	1.227	1.226
6	1.612	1.170	1.209
9 and 10	2.083	1.361	1.487
Territories	1.984	*	2.000
Overall	1.732	1.306	1.387
Number of Forms Returned	71	307	378
Number of Projects in Universe	123	401	524

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*No projects in this cell.

**Regrouped to reflect regional variations in Spanish.

Note: Weighting factors include an adjustment for the number of projects (1, 2 or 3) represented by a returned questionnaire.

9.5.1 Selection of Projects

A total of 60 strata were formed from combinations of five variables (type of language, number of langages, geographic region, total number of students served, and year of funding). One project was then selected from each of the 60 strata, so that a total of 60 projects were chosen.

The expansion factor used was the reciprocal of the probability of selection, or N_i, the number of projects in the i^{th} stratum. Thus, a project selected from a stratum having seven projects in it had a 1/7 probability of being drawn, and a weight of 7.

The number of projects in each of these strata varied from 3 to 11. However, 53 of the 60 projects (or over 88%) were in strata having between 5 and 9 projects. Thus, the number of projects in each stratum was fairly equal. Equalizing the sizes of strata would have meant that some projects whose background characteristics were quite similar to other projects (i.e., classified into the same stratum) would have had to be reassigned to other strata, making those strata less homogeneous. This would have seriously weakened the goals of the stratification. In general, the design was considered suitable for making comparisons between subgroups or domains of interest, and for correlational analyses (see Kish, 1965).*

9.5.2 Selection of Designated Types of Respondents

In terms of respondents, each of the 60 project directors administered a single project serving the grades K-6, and was interviewed by using the Project Director Interview form. Thus, the weights as described above for projects apply to this form and provide the basis for generalizing to the sub-universe of the 401 project directors whose projects served grades K-6. A small amount of respondent unavailability, however, occurred with other respondents who also represented a single individual per sampled project; each is discussed below.

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*Kish, L., Survey Sampling. New York: Wiley, 1965.

Data were collected from 59 of 60 superintendents. The weights used with this respondent group consisted of multiplying the project selection weight for each of the 59 projects with responding superintendants by the ratio of: the sum of the weights for all projects divided by the sum of the weights represented by the particular 59 projects. This ratio was: (401/394). This adjustment for non-response was used in the preparation of estimates for the sub-population of superintendants in the 401 projects serving grades K-6.

A quite similar approach was used with coordinators of federal programs. Again, there was one possible respondent per sampled project and 59 of the 60 were interviewed. The overall weights used were obtained by multiplying each project expansion factor from the 59 responding projects by the ratio of (401/392).

One other respondent group consisted of a single individual per sampled project. This was the Parent Advisory Committee Chairpersons respondent group, of which 56 of the sampled 60 were interviewed. Here too, each project selection weight was multiplied by an adjustment for non-response, the ratio of (401/375), which was used in making estimates for the sub-population of PAC chairpersons in K-6 projects.

9.5.3 Weighting Factors Used with Principals and Teachers

In general, the weighting factor used with data from school principals was the reciprocal of the product of the two sampling fractions: the probability of selecting a project, multiplied by the probability of selecting a school from the pool of target K-6 schools within that project. In mathematical terms:

$W_i = (N_i)(S_i/s_i)$

Where,

N_i = the number of projects in the i^{th} stratum

S_i = the total number of schools in the project selected from the i^{th} stratum

s_i = the number of schools sampled (either 1, 2 or 4) in the project selected from the i^{th} stratum, and

W_i = the weight for each sample school in the project selected from the i^{th} stratum.

To illustrate, assume that four schools were drawn from a total of 11 schools within a project drawn from among seven projects. The weight for each of the four schools would be: $(7)(11/4) = 19.25$. This method of weighting provided estimates for the sub-universe of principals assigned to target K-6 schools within K-6 projects.

Similarly, the expansion factors used with data from classroom teachers consisted of the reciprocal of the product of a series of sampling fractions. The overall weighting factor for the k^{th} teacher can be expressed as:

$W_{ijk} = (N_i)(S_i/s_i)(T_{ijk}/t_{ijk})$,

Where,

N_i = the number of projects in the i^{th} stratum

S_i = the total number of schools in the project selected from the i^{th} stratum

s_i = the number of sampled schools (either 1, 2 or 4) in the project selected from the i^{th} stratum

T_{ijk} = the total number of teachers in the k^{th} grade (or grade range) of the j^{th} school in the project selected from the i^{th} stratum

t_{ijk} = the number of sampled teachers drawn in the k^{th} grade of the j^{th} school in the project selected from the i^{th} stratum, and

W_{ijk} = the weight assigned to all sample teachers in the k^{th} grade in the j^{th} school in the project selected from the i^{th} stratum.

To illustrate how these weights were computed, assume that (a) two teachers were drawn from among three serving the first grade,* (b) in a school drawn as one of four sampled from 11 in a project, and (c) that project was drawn from among seven projects assigned to the same stratum. The weight for each teacher would be:

$$W = (7)(11/4)(3/2) = 28.875$$

In addition, since all of the grades K-6 were used and no sampling of grades occurred, no specific weight for selecting a given grade was needed. The probability (which was 1/2) of receiving the full teacher interview (rather than the Classroom Skills Inventory) was also included in deriving an overall expansion factor. This provided the flexibility to make unbiased population parameter estimates, if desired, from either the pool of teachers randomly selected to be administered the full teacher interview, or from those teachers randomly selected to be given the CSI. (This was considered more practical and just as sound as combining the two data sets which contained relatively few common data elements. Thus, sampling biases from using either data set were considered minimal.)

Expansion factors as described above were assigned to each of the 277 classroom teachers who were interviewed. The 266 classroom teachers administered the Classroom Skills Inventory (excluding the 17 teachers found to have only Part A usable information) were assigned expansion factors in much the same way. As shown in Table A9.1, expansion factors from the two sets of teachers are extremely similar. This indicates that one set of weights was essentially equivalent to the other set for purposes of generalizing to the full universe of classroom teachers in K-6 projects.

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*Teachers were sampled within a selected school from lists of teachers serving either the grades kindergarten; one; two and three; or four through six. See Chapter 2 for more details.

Resource teachers such as subject matter specialists, bilingual community liaisons, etc., also involved multistage sampling; namely, selecting projects, schools within projects, and third (if not chosen with certainty) then selecting resource teachers with equal probability of selection from a local sampling frame or listing of the resource teachers serving that school. Thus, as with other respondents selected from within each project, the overall expansion factor became the reciprocal of the product of several sampling fractions, in this instance:

$$(N_i)\ (S_i/s_i)\ (R_{ij}/r_{ij}).$$

Where, R_{ij} and r_{ij} refer to the total and sample numbers of resource teachers in the j^{th} school selected from the sample project in the i^{th} stratum.

For example, if (a) one resource teacher was chosen from two in a school, (b) and that school chosen as one of four schools selected from among eleven, (c) within a project selected from among seven, then the overall weighting factor for this resource teacher is: $W = (7)(11/4)(2/1) = 38.50$. A total of 170 resource teachers was selected.

9.5.4 Weighting Factors Used With Teacher Aides

Teacher aides were also selected with joint probabilities based on the product of several individual probabilities of selection, i.e., those representing the likelihood of selecting the project, school, classroom or resource teacher, and the aide. This meant that the weighting factor used was the reciprocal of the product of several sampling fractions, i.e.,

$$W_{ijkl} = (N_i)\ (S_i/s_i)\ (T_{ijk}/t_{ijk})\ (A_{ijkl}/a_{ijkl}).$$

Here an additional stage of sampling was used beyond that used for sampling teachers if more than one aide per teacher was present. (If only one aide was assigned to a given teacher, then the (A_{ijkl}/a_{ijkl}) weight was = 1.0). For example, the overall weight would be equal to 77.0, given the following weighting factors: $W = (7)\ (11/4)\ (4/2)\ (2/1) = 77.0$

9.5.5 The Representativeness of Mail Survey Data from the Visited Projects

The 60 projects visited for indepth data collection purposes were also sent the mail questionnaires for project directors and PAC chairpersons, as part of the first phase of the Study. Since the 60 projects were a representative sample of the sub-population of 401 K-6 projects, overall expansion factors relevant to that sampling frame were used. To do this, the reciprocal of the probability of selecting a project from its stratum within the sampling frame of 401 K-6 projects was multiplied by the ratio (401/372). The denominator of this ratio represented the sum of the weights for the 56 projects which responded. Similarly, 45 Parent Advisory Committee chairpersons completed a mail survey form. The corresponding ratio is (401/303), the denominator representing the sum of the weights for the 45 projects which responded.

9.5.6 Weighting Factors Used with Document Information

Two types of document information were gathered for analysis purposes by using data recording forms. The Document Review form was completed on all 60 projects sampled from the sub-population of 401 K-6 projects. The same weighting factor used for the project director interview form was used for this document.

The other form was the Plans and Objectives data recording form, which abstracted certain information from the first year or initial funding applications of the 60 sampled projects. After an intensive search in OBEMLA files, only 47 of the 60 funding applications were available for abstracting purposes. Cross-tabulation analyses of project background characteristics indicated that project size, in terms of the number of students (as grouped into four categories), was most related statistically to the availability of funding applications. In each of those four cells, the total number of projects from among the 60 was therefore divided by the corresponding number of projects whose applications were located in OBEMLA files. These ratios were then used to inflate the reciprocal of the probability of selecting each of the 60 projects from its respective stratum within the sampling frame of 401 K-6 projects. Using this procedure as an adjustment factor for the unavailability of data was a more accurate technique than simply inflating all project selection weights by the overall ratio of (60/47).

9.6 The Role and Nature of Scaled Weighting Factors

The above composite or overall weighting factors were used to make statistically representative and unbiased population parameter estimates of a relevant population or sub-population. In addition, Study purposes called for conducting tests of statistical significance and correlational analyses. Early in the Study design stage, it became evident that the SPSS computer package was very useful for most Study purposes. However, the results it provided from statistical significance tests appeared to be seriously misleading and artifactual. The SPSS method of weighting data in such tests amounts to inflating the sample size to population levels.* The Type I error rate would therefore be dramatically increased, and incorrectly so. Many more tests of statistical significance would seem to indicate real between-comparison groups differences in their means than actually would be the case. This, in turn, would lead to misleading interpretations of group differences.**

As a vivid example, two significance tests of between-group differences were computed using SPSS and the same variable from teacher data. One analysis was based on the 277 unweighted respondents, the other on the 8,136 classroom teachers estimated to be in the universe of K-6 projects. In the unweighted analysis using 277 teachers, the obtained F-ratio of 2.076, with 7 and 263 degrees of freedom, indicated borderline significance of .0465. In contrast, the weighted analysis, using 8136 teachers, yielded a F-ratio of 270.94, which with 7 and 8025 degrees of freedom, represented a significance level of .0000, as printed out by the computer. The implications for data analysis were that virtually all significance tests would be statistically significant, as an artifact of the SPSS procedure, and thus not be very useful.

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*As such, the significance test would constitute a confirmation of a statistical relationship, rather than being an inferential statistic per se.

**That is, now having an inflated (to the population level) number of cases would proportionately reduce the standard error being used in these significance tests.

To make the SPSS procedure accurately compute tests of significance, the weights (expansion factor) described above needed to be scaled so that the sum, in each case, equalled the number of respondents. This approach had been recommended by the developers of SPSS (Nie et. al., 1975, p. 130).* For example, the sum of the principals' weights was 1555. These weights needed to be scaled so they added to 118, the number of principals in the sample. Thus the principals' weights, as described above, were all multiplied by the ratio (118/1555). An overall expansion factor of 12.0 therefore became: (12.0)(118/1555) = .911. The sum of the scaled weights for all principals now equalled 118, the number of cases in the sample. This did not negate the weighting needed because of differences in sampling rates. All derived scaled weights were computed in this manner, and then were applied to the pertinent data sets for use in correlational and descriptive analyses.

In general, the rescaling approach was used in these analyses where the specific intent was to describe the characteristics of the K-6 projects and their personnel, rather than to make national-level estimates of the magnitude of a variable across the full population. Table A9.3 contains the actual (or estimated) populations, and the mean scaled weight analogues of overall expansion factors used with each Study data source. Table A9.4 contains the mean scaled weights for teachers administered the Classroom Skills Inventory for: (a) each of the grades taught by the 266 teachers sampled, and (b) for the modal functional skills grades of these same teachers' LEP students.

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*Nie, N.H.; Hull, C.H.; Jenkins, J.G.; Steinbrenner, K.; and Bent, D.H. SPSS: Statistical Package for the Social Sciences (second edition). New York: McGraw-Hill, 1975.

TABLE A9.3

MEAN SCALED WEIGHTS AND TARGET POPULATION SIZES BY STUDY DATA SOURCE

Data Source	Actual or Estimated Population Size	Mean Scaled Weights
Project Director Mail Questionnaire	401*	1.071
Parent Advisory Committee Chairperson Mail Questionnaire	401*	1.333
Superintendant Interview	401	1.017
Coordinator of Federal Programs Interview	401	1.017
Project Director Interview	401	1.000
Principal Interview	1555	1.000
Teacher Interview	10440	1.000
Classroom Teachers	8136	1.000
Resource Teachers	2304	1.000
Classroom Skills Inventory (from classroom teachers)	8009	1.000
Parent Advisory Committee Chairperson Interview	401	1.074
Teacher Aide Interview	8243	1.000
Document Review Form**	401	1.000
Plans and Objectives Data Recording Form**	401	1.277

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*Not based on N=524 since scaled weights were only applied to data from the K-6 sub-universe, their sampled projects and respondents.

**One per project.

TABLE A9.4

MEAN SCALED WEIGHTING FACTORS USED WITH CLASSROOM SKILLS INVENTORY DATA BY CLASSROOM GRADE OF TEACHER RESPONDENTS AND SKILL LEVEL GRADE

Grade	Classroom Grade		Skill Level Grade	
	N	Mean	N	Mean
K	58	1.089	85	1.028
1	56	1.151	66	1.232
2	45	1.124	44	1.031
3	39	.836	36	.753
4	26	.843	21	.794
5	23	.891	9	.589
6	18	.667	5	.571
Grade Unknown	1	.747	--	---
Total Teachers*	266	1.000	266	1.000

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*The same sample of 266 teachers is categorized into (a) the grade each teaches, and (b) the functional skills level grade of the majority of each teacher's LEP students, as reported by the teacher.

9.7 Item Nonresponse and Imputation

In contrast to respondent nonresponse or unavailability, a number of instances of item nonresponse or missing data occurred. As anticipated, some nonresponse still existed after earnest attempts were made by field staff to obtain data for each item in a particular questionnaire. This is a common problem in sample surveys and program evaluations of field settings. A number of statistical methods exist in the literature to deal with this problem, and include the following approaches:

- Cases having item nonresponse can be deleted from tabulations of single items or even expunged from the whole data set.
- A value can be assigned to each instance of nonresponse based on the reported value for some similar population element.
- Relative weights assigned to sample elements can be altered within a stratum.
- Related data files can be used to impute the missing values.
- Responses on some other items can be used to impute the missing value.

Ideally, the specific technique to be used should depend on the type of item for which information is missing, the magnitude of item nonresponse, and other practical considerations such as cost, simplicity, and availability of related data. For example, with respect to the latter point, only one project was selected from each stratum in the present Study. It was therefore impossible to accurately impute project-level information from one project to replace missing data in the other. Lacking sufficient information from other sources, it also was difficult to accurately impute data on a case-by-case basis.

After discussion and study, and after considering the large number of data sources and variety of analyses, it was decided to exclude cases with item nonresponse from tabulations of single items, and report the findings in sufficient detail so that it was clear that a subset of individuals had responded to a particular item. Wherever useful, tables also included both the full number of cases sampled and the number responding so that the extent of missing data could be assessed. This was viewed as a practical, conservative and safe procedure. It did not run the risk of imputing information which was inaccurate, nor did it possibly skew findings by using item nonresponse adjustments and possibly "overweighting" respondents' findings to compensate for the missing data. Nonetheless, the potential impact of nonresponse still remained.

9.8 Summary

This technical appendix has provided a detailed exposition of how unbiased expansion or weighting factors were computed and applied to each data source used in the Study. In general, these weighting factors were the reciprocals of the joint or individual probabilities of selection, coupled with adjustments for respondent unavailability. The need for using such factors to make the sample data statistically representative of all projects or respondents was considered quite important in this Study. Similarly, scaled weights were calculated to proportionately "downweight" expansion factors and maintain the Type I error rate at a reasonable level. These, too, were used with Study sample data as suitable.

Despite the use of unbiased estimators, the precision of the particular means, proportions or totals used as population parameter estimates needs to be stated so that readers can have a sense of how much variance exists in the findings. Such sampling errors are provided in Appendix 10.

APPENDIX 10

STANDARD ERRORS ASSOCIATED WITH NATIONAL-LEVEL ESTIMATES OF SELECTED CHARACTERISTICS OF TITLE VII BILINGUAL EDUCATION PROGRAMS

APPENDIX 10

STANDARD ERRORS ASSOCIATED WITH NATIONAL-LEVEL ESTIMATES OF SELECTED CHARACTERISTICS OF TITLE VII BILINGUAL EDUCATION PROGRAMS

This Appendix contains the estimated national-level sample statistics and associated standard errors for those Title VII program characteristics which were selected as being particularly interesting to policymakers and planners. Some guidelines for interpreting these standard errors and how they were computed are also included.

Definitions of Terms

The statistics presented in this report are primarily based on: (a) probability samples of bilingual education projects and their personnel, and (b) mail survey instruments distributed to all funded projects. Since the latter approach is based on a census rather than on a probability sampling approach, only adjustments for non-response were made; these are described in Appendix 9.

One should also keep in mind that two types of errors are possible in deriving summary statistics or estimates based on a sample survey -- sampling and nonsampling errors. Sampling errors occur because the obtained data are based on a probability sample rather than the entire population. Nonsampling errors arise from many sources, and represent an entire area of concern in themselves.* These can arise from any of the following factors: inability to obtain information about all cases in the sample; definitional difficulties which may vary across local projects or respondents; how questions are interpreted; respondents' inability, intention or unwillingness to provide accurate and correct information; and a wide range of other measurement, processing, and responding errors.

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*See: Lessler, J. T.; Kalsbeck, W. D.; and Folsom, R. E. Errors in Surveys. Manuscript in preparation for John Wiley and Sons, Inc., New York.

Responding errors include those errors occurring in: collection, response, processing, adequacy of coverage of the universe being sampled, and missing data estimation. For example, missing data may arise despite careful item development, pretesting of survey forms, and providing motivation to respond. All of these activities were conducted in the present Study. Thus, even though the present Study was potentially subject to these types of error, the overall effects of these nonsampling errors were minimized to the extent possible.

The national-level estimates provided here are obtained from sample data, and therefore vary somewhat from the corresponding statistics that would have been obtained if a complete survey or a census which yielded 100% response had been conducted, using the same data collection forms, procedures and instructions. Furthermore, each sample which was used represents only one of a large number of possible samples (of the same size) that could have been selected by using the same sampling design and universe of projects or other types of sampling units. Estimates derived from these different samples will generally differ from each other. Such a difference between a sample estimate and the average of all possible samples (drawn from the same universe) is called the sampling deviation. In turn, the standard or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples. It therefore is a measure of precision with which an estimate from a particular sample approximates the average result of all possible samples. In general, the sampling procedures and sample sizes used in this Study were selected to minimize errors to the extent possible within reasonable costs, recognizing the finite resources available.

In addition, while the standard error partially measures the effect of nonsampling errors, it does not measure any systematic biases in the data. Bias (or misrepresentativeness) is the difference, averaged over all possible samples, between the estimate and the true value. With these factors in mind, the overall accuracy of a survey result depends on both: (a) the sampling and nonsampling errors, measured by the standard error, and (b) the bias and other types of nonsampling error, not measured by the standard error.

The sample estimate and an estimate of its standard error permits the development of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. For example, one of the most frequently cited confidence interval sizes is the 95% confidence interval. Conceptually, this means that if all possible samples were selected, each was surveyed under essentially the same conditions, and an estimate and its estimated standard error were calculated from each sample, then approximately 95 percent of the intervals from 2 standard errors below the estimate to 2 standard errors above the estimate would include the average value of all possible samples. (An interval from 2 standard errors below the estimate and 2 standard errors above the estimate is called a "95-percent confidence interval"; see Gonzalez, Ogue, Shapiro, and Tepping, 1975).*

The closeness of these approximations depends on the closeness of the actual distribution of the statistic to the normal distribution. In the case of sample percentages, the normal approximation is satisfactory except for small samples and extremely large or small percentage values. The average value of all possible samples may or may not be contained in any particular computed interval. But for a particular sample, one can say with specified confidence that the average of all possible samples is included in the constructed interval.

Tables A10.1 and A10.2 present estimated national-level sample statistics and associated standard errors. The data source (or sources) and relevant sample size used as the basis for each national-level estimate are also provided as a guide to readers.

Methods Used In Computing Standard Errors

Standard errors for project level data were computed by using pseudoreplication techniques (National Center for Health Statistics,

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*Gonzalez, M.; Ogue, J.; Shapiro, G.; and Tepping, B. Standards for Discussion and Presentation of Errors in Survey and Census Data. Journal of the American Statistical Association, 1975, 70, Part II.

TABLE A10.1

STANDARD ERRORS ASSOCIATED WITH SELECTED CHARACTERISTICS OF TITLE VII BILINGUAL EDUCATION PROGRAMS

Characteristic	Data Source	Number of Cases Having Data	National-Level Estimate	Standard Error
Total number of Limited English Proficient(LEP) students in Title VII projects	(a) Teachers in K-6 projects administered the Teacher Interview	260*	168,989	27,258
	(b) Teachers in K-6 projects administered the Classroom Skills Inventory	274*	161,212	12,905
Average percent of LEP students in self-contained classrooms	Teachers in K-6 projects assigned to self-contained classrooms	229	43.3%	3.8%
Average percent of K-6 projects using the pull-out model exclusively or in conjunction with the in-class model	Project Directors in K-6 projects	57	36.9%	6.0%
Average percent of teachers receiving bilingual education training during the:				
1980-81 School Year	Classroom Teachers	274	54.0%	6.7%
1979-80 School Year		276	60.8%	8.1%

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*Data from these cases were then multiplied by the ratio (524/401) so that the national-level estimate now applies to teachers in all Title VII-funded projects rather than solely in K-6 projects.

TABLE A10.1 (Continued)

Characteristic	Data Source	Number of Cases Having Data	National-Level Estimate	Standard Error
For each of the following subject areas: average percent of weekly instruction taught in English:				
English Reading and Language Arts	Classroom Teachers in K-6 projects	200	85.9%	3.9%
English as a Second Language (ESL)		157	82.2%	2.6%
Native Reading and Language Arts		168	11.9%	1.9%
Mathematics		220	71.2%	3.1%
Social Studies		200	71.9%	3.6%
Science		209	73.5%	3.3%
Cultural Enrichment		89	60.9%	4.9%
Average percent of projects stating how their school district's bilingual education program would be affected if Title VII funding were reduced or discontinued:				
Program would remain the same	Superintendants	56	19.8%	5.1%
	Coordinators of Federal Programs	56	17.0%	6.0%
Program would be reduced or dropped	Superintendants	56	76.2%	5.6%
	Coordinators of Federal Programs	56	81.3%	6.3%

TABLE A10.2

STANDARD ERRORS ASSOCIATED WITH PERCENTAGES OF READING, WRITING AND ORAL LANGUAGE COMPONENT SKILLS TAUGHT ONE GRADE BELOW BY MODAL LEP GRADE LEVEL*

Modal LEP Grade Level	Number of Teachers Having Data		Skills Component		
			Reading	Writing	Oral Language
K	85	Estimated Percent	-	-	-
		S.E.			
1	66	Estimated Percent	-	-	84.0%
		S.E.			2.0%
2	44	Estimated Percent	93.2%	95.0%	74.0%
		S.E.	2.0%	2.0%	4.0
3	36	Estimated Percent	89.7	87.6	63.1
		S.E.	9.0	9.0	9.0
4	21	Estimated Percent	87.4	90.0	76.9
		S.E.	**	**	**
5	9	Estimated Percent	70.3	75.1	44.1
		S.E.	**	**	**
6	5	Estimated Percent	91.3	89.4	82.6
		S.E.	**	**	**

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*See Table 6.5, Chapter 6, for reference.

**Due to insufficient numbers of cases per pseudostratum, could not be computed.

Notes: S.E. = Standard Error; dashes indicate that no skills below that modal LEP grade level were measured.

1966).* A measure of within-stratum variance was obtained by grouping or combining similar strata into pseudostrata. For example, 60 strata representing the sampling frame of 401 projects serving grades K-6 were combined (or collapsed) to form 30 pseudostrata, each consisting of two original strata. Each pseudostratum therefore had two sample projects. The sampling variance of the sample means, percentages, or totals expanded to national-level estimates was estimated by using Taylor Series linearization techniques (Shah, 1981; Appendix C).** In essence, the sampling variance within each pseudostratum was weighted by the sizes of the pseudostrata and summed across pseudostrata to form the overall estimated sampling variance.

One further step was used when estimating totals of summary data, such as the total number of limited English proficient students, information supplied by teachers. Since differential sampling rates had been used in selecting projects, data were first adjusted by the ratio of the total weight of the pseudostratum to that for each member of the pair. This was needed to remove variance associated with differences in stratum sizes within pseudostrata, because such variance is actually between-stratum variance and not a part of sampling variance.

To convert the standard errors shown in Tables A10.1 and A10.2 into 95 percent confidence intervals as defined earlier, the following algebraic expression applies: $X' \pm 1.96\ s$

Where s is a standard error and X' is the estimate that s pertains to.

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*National Center for Health Statistics. Replication: An Approach to the Analysis of Data from Complex Surveys. Vital and Health Statistics (PHS Pub. No. 1000-Series 2-No. 14). Public Health Service, Washington. U.S. Government Printing Office, 1966.

**Shah, B.V. SESUDAAN: Standard Errors Program for Computing of Standardized Rates from Sample Survey Data. Research Triangle Park, NC: Research Triangle Institute, 1981.

For example, the estimated mean percentage of time during a week that instruction in the subject area, English Reading and Language Arts, is taught in English is 85.9%. The standard error of that estimate is 3.9% (see Table A10.1). Then in this case, the 95 percent confidence interval is 85.9% ± 3.9%, or a range of 78.3% to 93.5%. That is, the chances are 95 out of 100 that this confidence interval will include the population value obtained by performing a census of all teachers working with Title VII projects serving grades K-6.

Standard errors for other national-level characteristics may be computed by using the computer tapes and documentation provided to the Department of Education as required by the terms of contract for this Study.

APPENDIX 11

SAMPLE CLASSROOM SKILLS INVENTORY (GRADE 3)

FEDAC NO. S211

EVALUATION OF THE CLASSROOM INSTRUCTION COMPONENT OF THE ESEA TITLE VII BILINGUAL EDUCATION PROGRAM

THE CLASSROOM SKILLS INVENTORY: PART B

This is an inventory of oral, reading, and writing skills which have been identified as skills which students need to function effectively in an all-English-speaking classroom at grade (GRADE TEACHER FILLED IN AS GRADE LEVEL MAJORITY OF CLASS IN ENGLISH LANGUAGE ARTS). We would like to know whether or not you expect that the majority of your Limited English Proficient students will be "taught" (or in some other manner learn as a result of participating in the project) these skills during the current school year.

Please complete this at your convenience. If you have any questions, feel free to call the interviewer at: (tel.)____________________. The interviewer's name is ____________________

The most convenient time to pick up the completed form is: Date:____________ Time:__________ From:________________________.

If necessary, please mail this form to:

TITLE VII CLASSROOM INSTRUCTION COMPONENT STUDY
Development Associates, Inc.
2924 Columbia Pike
Arlington, Virginia 22204
Telephone: (703) 979-0100

Completed on:______________________________

Name of LEA:______________________________

City:__________________ State:__________________

School Name:______________________________

School Address:______________________________

____

Grade Level:__________ Teacher Name:____________________

ADP ONLY	
CODE	C/COL
85	1-2
—	3-4
—	5-6
—	7-9
—	10-11
—	
—	12
—	13

BEST COPY AVAILABLE

ED 751-8B, Expires 7/81

PART B

Part B is concerned with ORAL, READING, and WRITING SKILLS.

Because students take varying lengths of time to learn different skills and because the same skill may have to be taught several times before a student learns it, we have focused on when skills are taught rather than on when they are learned. (In some instances you may not plan to teach a skill because you expect students to acquire it this year without direct instruction. In such cases, please mark the question as though you are teaching the skill.)

Please respond to the questions in terms of the majority of Limited English Proficient (LEP) students in the group you and the interviewer have identified: ___ LEP students requiring instruction at approximately the third grade level.

Because no group will be working at the same grade level in all areas, we have incorporated items from varying grade levels. Please keep this in mind when you note that some of the items seem too elementary and some seem too difficult.

Many of these skills are general and can be taught either in English or in the students' native language (because the skill is related to general comprehension or because the students' native language and English share a similar alphabetic writing system). For many of the skills we will, therefore, ask if the skill is being taught in English, in the students' native language, or in both.

Please remember, circle the code if the skill has been or will be taught this year to the identified group of students or they have acquired or will acquire the skill in some other way during this school year.

SECTION I. ENGLISH-SPECIFIC SKILLS

Below are 7 lists of English-specific skills. Please circle the code (1) for each skill which you expect the group of LEP students you and the interviewer selected to be taught during this year. (CIRCLE ALL CODES THAT APPLY.)

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
A.	**ORAL LANGUAGE**		
1.	Produce indirect objects and benefactives introduced by prepositions (ex: I gave the book to John. I bought it for her.)	1	16
2.	Comprehend indirect objects and benefactives not introduced by prepositions (ex: John showed Marsha the card. Marsha bought John a book.)	1	17
3.	Comprehend passive sentences with "be": agent not specified (ex: The milk was spilled.)	1	18
4.	Produce passive sentences with "be". agent not specified (ex: The milk was spilled.)	1	19
5.	Comprehend passive sentences with reversible noun phrases (ex: The boy pulled the girl. <--> The girl was pulled by the boy.)	1	20
6.	Comprehend the distinction between sentence introducers "nevertheless" and "therefore".	1	21
7.	Produce present tense verbs in third person singular with syllabic suffix (ex: She fishes. He watches.).	1	22
8.	Produce past tense verbs with syllabic suffix (ex. He counted. She painted.).	1	23
9.	Produce "don't" in negative declarative sentences	1	24
10.	Produce "doesn't" and "didn't" in negative declarative sentences (ex. He doesn't like the game.)	1	25
11.	Produce "do" in yes/no questions.	1	26
12.	Produce "does" and "did" in yes/no questions (ex. Does she have the ball?)	1	27
13.	Produce "do", "does", and "did" in "wh" questions (ex. What can we do?)	1	28

A. ORAL LANGUAGE (Continued)

		Skill will be taught in English this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
14.	Produce regular plurals with syllabic suffix (ex: two watches, three boxes).	1	29
15.	Produce irregular plurals (ex: two calves, three men).	1	30
16.	Produce possessives with syllabic suffix (ex: fox's tail, horse's hat)	1	31
17.	Comprehend demonstrative adjectives when distance is evinced (ex: These books are mine. Those books, over there, are yours.) .	1	32
18.	Produce demonstrative adjectives when distance is evinced (ex: These books are mine. Those books, over there, are yours.) .	1	33
19.	Comprehend possessive adjectives: "its" and "their" (ex. its legs, their wings)	1	34
20.	Produce possessive adjectives. "its" and "their" (ex: its legs, their wings)	1	35
21.	Comprehend demonstrative pronouns when distance is evinced (ex: These are here. Those are there.)	1	36
22.	Produce demonstrative pronouns when distance is evinced (ex: These are here. Those are there.)	1	37
23.	Produce relative clauses with relative pronoun as subject (ex: The boy caught the box that was falling.).	1	38
24.	Comprehend relative clauses with relative pronoun as object (ex. Maria caught the ball that he threw.).	1	39
25.	Produce relative clauses with relative pronoun as object (ex: Maria caught the ball that he threw.).	1	40
26.	Comprehend relative clauses with relative pronoun omitted (ex: Mary caught the ball Jim threw.)	1	41
27.	Produce relative clauses with relative pronoun omitted (ex: Mary caught the ball Jim threw.)	1	42

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
A.	ORAL LANGUAGE (Continued)		
28.	Comprehend relative clauses with relative pronoun "whose" (ex: The boy whose bike was broken is my friend.)	1	43
29.	Comprehend relative clauses with relative pronoun preceded by a preposition (ex: She caught the wagon on which he rode.) . . .	1	44
30.	Comprehend the presupposed truth of "that" clauses which assert facts, conjectures, beliefs, etc. (ex: I know that he is there. I believe that he is there.).	1	45
31.	Comprehend the roles of the participants in sentences with "promise" followed by an infinitive phrase (ex: Mother promised Father to bake a cake.)	1	46
32.	Comprehend the roles of the participants in sentences with "easy", "hard", and "fun" followed by an infinitive phrase (ex: My dog is easy to train.).	1	47
B.	READING		
1.	Recognize initial/final consonants.	1	48
2.	Recognize variable pronunciations of c and g	1	49
3.	Recognize at least two of the following consonant digraphs: sh, th, wh, ch.	1	50
4.	Recognize at least three of the following consonant digraphs: kn-, wr-, gn-, qu-, -ff, -ss, -ng, -zz, -mb	1	51
5.	Recognize at least three of the following consonant digraphs: gh/f, ph, sc/sk,/s/, ch/s/,/k/, medial st/s/ (silent t).	1	52
6.	Recognize initial consonant clusters. consonant + r, consonant + l.	1	53
7.	Recognize consonant clusters: s + consonant .	1	54

B. READING (Continued)

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
8.	Recognize at least three of the following final 2-consonant clusters: -mp, -nd, -nk, -nt, -st.	1	55
9.	Recognize at least three of the following consonant clusters: spr-, str-, scr-, thr-, tw-, -nch, -tch	1	56
10.	Recognize short vowels: consonant-vowel-consonant words (ex: hit, hat, hut)	1	57
11.	Recognize at least two of the following vowel-e patterns: i-e, a-e, o-e (ex: five, came, home).	1	58
12.	Recognize at least two of the following. aw, ou, ow, u-e	1	59
13.	Recognize words spelled with at least three of the following: au, ew, ie, oe, ue, uy, igh, eigh, ough	1	60
14.	Recognize at least two of the following vowel digraphs: oo, ee, oa.	1	61
15.	Recognize at least three of the following vowel digraphs: ay, ai, ea, oi, oy.	1	62
16.	Recognize vowels y and igh.	1	63
17.	Recognize l-colored vowels (ex: wall, salt, tell)	1	64
18.	Recognize r-colored vowels (ex: bark, herd, birch).	1	65
19.	Recognize verb endings: -s, -ing, -ed	1	66
20.	Recognize verb ending: -es.	1	67
21.	Recognize noun plural ending. -s.	1	68
22.	Recognize noun plural ending: -es	1	69
23.	Recognize irregular plural forms of nouns . .	1	70
24.	Recognize singular possessive form of nouns: -'s.	1	71
25.	Recognize comparative endings. -er, -est. . .	1	72
26.	Recognize inflected forms of -e ending words (ex. house-houses, smile-smiling) . . .	1	73
			"01"79-80

		Skill taught in English during this school year	ADP ONLY C/COL Dupl. 1-15
B.	**READING** (Continued)		
27.	Recognize inflected forms of words with consonant doubling (ex: plan-planning, big-bigger)	1	16
28.	Recognize inflected forms of -y ending words (ex: pretty-prettier)	1	17
29.	Recognize agentive: -er (ex: buy-buyer, make-maker)	1	18
30.	Recognize adjective ending -y (ex: sleepy)	1	19
31.	Recognize prefixes: re-, un-, dis-, mis-	1	20
32	Recognize suffixes: -ful, -less, -ness	1	21
33.	Recognize suffixes: -ly, -or	1	22
34.	Recognize contractions	1	23
35.	Recognize compound words	1	24
C.	**SPELLING**		
1.	Spell initial consonant sounds (ex. d-dog, c-cat, g-gate)	1	25
2.	Spell medial consonant sounds: doubled consonants between vowels (ex: bb-rabbit, dd-ladder, mm-hammer)	1	26
3.	Spell final consonant sounds (ex. p-top, t-hat, g-bug)	1	27
4.	Spell final consonant sounds (ex: x-box, ck-clock, ss-glass)	1	28
5.	Spell initial consonant clusters (ex. sn-snake, cl-clock, dr-drum)	1	29
6.	Spell final consonant clusters (ex: mp-stamp, st-nest, nt-tent)	1	30
7.	Spell consonant digraphs (ex: ch-chair, sh-fish, th-thumb)	1	31
8.	Spell one-letter vowels (ex: e-bed, i-pig, a-hat)	1	32
9.	Spell one-letter vowels (ex: e-we, y-fly, y-dry)	1	33

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
C.	SPELLING (Continued)		
10.	Spell one-letter vowels (ex: a-wash, o-cost, u-push)	1	34
11.	Spell vowel digraphs (ex: ai-train, oa-goat, oo-book).	1	35
12.	Spell vowel digraphs (ex: ie-pie, ew-grew, oi-join).	1	36
13.	Spell vowel-consonant -e pattern (ex: a-e/cake, i-e/five, o-e/rope).	1	37
14.	Spell vowel -r pattern (ex: ar-star, or-corn, or-fork)	1	38
15.	Spell vowel -r pattern (ex: air-chair, ear-swear, er-person)	1	39
16.	Spell plurals by adding -s or -es (ex: boat-boats, dish-dishes, box-boxes). . .	1	40
17.	Spell verb forms by adding -s, -es, -ed, -ing. one syllable verbs requiring no changes (ex: teach-teaches, play-plays). .	1	41
18.	Spell new words by adding suffixes (ex: slow-slowly, tall-taller, cold-coldest).	1	42
19.	Spell new words by changing y to i when adding certain suffixes (ex: city-cities, try-tried, funny-funniest).	1	43
20.	Spell new words by dropping final e when adding certain suffixes (ex: ride-riding, nice-nicest).	1	44
21.	Spell new words by doubling the final consonant when adding certain consonants (ex: hop-hopping, swim-swimmer, big-biggest).	1	45
D.	WRITTEN LANGUAGE		
1.	Distinguish noun forms: singular/plural . . .	1	46
2.	Recognize correct word order: subject-verb.	1	47
3.	Recognize correct word order: subject-verb-object (ex: The cow is eating grass.).	1	48

	Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
D. WRITTEN LANGUAGE (Continued)		
4. Recognize correct word order. subject-verb-object-phrase (ex: I found a penny on the floor.)	1	49
5. Relate sentences by transformation: declarative <--> interrogative: inversion (ex: The party was fun. <--> Was the party fun?)	1	50
6. Relate sentences by transformation: declarative <--> interrogative: do support (ex: The dog barked. <--> Did the dog bark?).	1	51
7. Use verbs appropriately: regular vs. irregular forms (ex: work, worked/see, saw, seen)	1	52

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		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
E.	CLASSROOM DIRECTIONS		
1.	Produce requests beginning with "will", "can", "could", and "would" (ex. Can I have your book? Will you get me my pencil?).	1	53
2.	Comprehend requests with "do you want to" and "would you like to" (ex: Would you like to give me that glass?).	1	54
3.	Comprehend requests with "do you think" and "do you suppose" (ex: Do you think I could get your attention? Do you suppose I can have one?).	1	55
4.	Comprehend requests with "can I" and "may I" (ex: Can I see the picture? May I have another?).	1	56
5.	Produce requests with "can I" and "may I" (ex: Can I be excused? May I go outside?).	1	57
6.	Comprehend requests in imbedded "if" and "whether" clauses (ex: If you can hear me, raise your hand.)	1	58
7.	Comprehend requests in adverbial "how" clauses (ex. I want to see how fast you can finish.).	1	59
8.	Comprehend requests imbedded in "when" and "if" clauses (ex: If you can find it, we'll be done.)	1	60
9.	Comprehend requests imbedded after "if" clauses (ex: If you can hear me, raise your hand.)	1	61

F. **ORAL VOCABULARY**: Students' ability to say word in English when word is cued by picture.

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
1.	tank	1	62
2.	girl	1	63
3.	refrigerator	1	64
4.	box.	1	65
5.	costume	1	66
6.	spinning	1	67
7.	horse.	1	68
8.	cattle	1	69
9.	burning.	1	70
10.	trap	1	71
11.	south.	1	72
12.	dog.	1	73
13.	harbor	1	74
14.	milk	1	75
15.	baby	1	76
			"02"79-80
			Dupl. 1-15
16.	map.	1	16
17.	wife	1	17
18.	lid.	1	18
19.	read	1	19
20.	farm	1	20
21.	sun.	1	21
22.	fly.	1	22
23.	muscle	1	23
24.	plane.	1	24

G. **PASSIVE VOCABULARY**: Students' ability to understand words (their passive vocabulary), it is not concerned with their ability to say or use the words.

		Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
1.	about	1	25
2.	at	1	26
3.	but	1	27
4.	did	1	28
5.	find	1	29
6.	get	1	30
7.	him	1	31
8.	if	1	32
9.	it	1	33
10.	like	1	34
11.	make	1	35
12.	most	1	36
13.	on	1	37
14.	our	1	38
15.	said	1	39
16.	some	1	40
17.	their	1	41
18.	these	1	42
19.	time	1	43
20.	use	1	44
21.	water	1	45
22.	what	1	46
23.	who	1	47
24.	write	1	48
25.	crust	1	49

G. **PASSIVE VOCABULARY** (Continued)

	Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
26. liquid	1	50
27. goods	1	51
28. nearby	1	52
29. attack	1	53
30. toward	1	54
31. explosive	1	55
32. pride	1	56
33. plan	1	57
34. recommend	1	58
35. shaft	1	59
36. express	1	60
37. bundle	1	61
38. airport	1	62
39. differently	1	63
40. regard	1	64
41. knowledge	1	65
42. fairly	1	66
43. lives	1	67
44. danger	1	68
45. communication	1	69
46. steady	1	70
47. itself	1	71
48. miserable	1	72
49. sample	1	73
50. winning	1	74
		"03"79-80

G. PASSIVE VOCABULARY (Continued)

	Skill taught in English during this school year (IF 'Yes' CIRCLE 1 BELOW)	ADP ONLY C/COL
		Dupl. 1-15
51. gain	1	16
52. solid	1	17
53. polished	1	18
54. suffering	1	19
55. prefer	1	20
56. negative	1	21
57. trust	1	22
58. hammered	1	23
59. chosen	1	24
60. control	1	25
61. spinning	1	26
62. citizen	1	27
63. underground	1	28
64. feast	1	29
65. helpful	1	30
66. bony	1	31
67. shrill	1	32
68. beaten	1	33
69. horseback	1	34
70. variety	1	35
71. notice	1	36
72. judgment	1	37

SECTION II: ENGLISH AND NATIVE LANGUAGE SKILLS

Below are 3 lists which may be taught in English or in some other languages. Please circle the code/s (1 and/or 2) for each skill which you expect the group of LEP students you and the interviewer selected to be taught during this year. (CIRCLE ALL CODES THAT APPLY.)

		Skill taught during this school year in:		ADP ONLY
		English	Students' Native Language	C/COL
A.	READING			
1.	Recognize letter names (alphabet)	1	2	38
2.	Recognize letter shapes (upper/ lower case)	1	2	39
3.	Recognize same/different letters in words.	1	2	40
4.	Classify words by excluding nonmember from class (ex: Which is not part of a tree?--trunk, branch, tail, root)	1	2	41
5.	Classify words by critical features (ex: Which one is used for writing?--horse, shoe, chair, pencil)	1	2	42
6.	Recognize meaning of word in context. . . .	1	2	43
7.	Recognize meaning of contextually cued familiar words	1	2	44
8.	Recognize meaning of contextually cued unfamiliar words	1	2	45
9.	Recognize meaning of multiple-meaning words in context.	1	2	46
10.	Understand definitions.	1	2	47
11.	Recognize synonyms.	1	2	48
12.	Recognize antonyms.	1	2	49
13.	Recognize homonyms and homographs	1	2	50
14.	Select positive or negative response to text or picture.	1	2	51
15.	Answer questions about a composite picture or simple story	1	2	52

		Skill taught during this school year in:		ADP ONLY
	A. **READING** (Continued)	English	Students' Native Language	C/COL
16.	Answer questions or complete sentences based on text detail.	1	2	53
17.	Recognize factual story details	1	2	54
18.	Recognize factual and inferential story details	1	2	55
19.	Recognize story title	1	2	56
20.	Select topic for paragraph/article	1	2	57
21.	Identify main idea in a story	1	2	58
22.	Identify main idea in paragraph	1	2	59
23.	Answer questions about a sequence of two events in a simple story which uses first grade vocabulary and concepts	1	2	60
24.	Answer questions about a sequence of three events in a simple story which uses second grade vocabulary and concepts. . . .	1	2	61
25.	Answer questions about and indentify sequence-of-events statements in a sequence of up to four events in a short descriptive story which uses third grade vocabulary and concepts	1	2	62
26.	Answer questions about a sequence of three to five events and actions employing "time phrases" (ex. then, next, before, during, 7 o'clock) in a short descriptive story which uses fourth grade vocabulary and concepts.	1	2	63
27.	Demonstrate recognition of cause-effect relationships ("Why...?"/"Because...") by answering questions about cause portions of text of simple story which uses third grade vocabulary and concepts	1	2	64
28.	Demonstrate understanding of cause-effect relationships by answering questions which emphasize both cause ("Why?", "How?") and effect ("What happened when...?") in simple story which uses fourth grade vocabulary and concepts.	1	2	65

		Skill taught during this school year in:		ADP ONLY
		English	Students' Native Language	C/COL
A.	READING (Continued)			
29.	Compare text details.	1	2	66
30.	Predict outcomes/draw conclusions	1	2	67
31.	Alphabetize by first letter	1	2	68
32.	Alphabetize by first and second letters	1	2	69
33.	Find correct definition for word in context in dictionary	1	2	70
34.	Answer questions based on table of contents	1	2	71
35.	Answer questions, given an index page.	1	2	72
				"04"79-80
				Dupl. 1-15
B.	WRITING			
1.	Copy sentences - manuscript form.	1	2	16
2.	Copy sentences - cursive form	1	2	17
3.	Write connected text legibly.	1	2	18
4.	Capitalize names of persons	1	2	19
5.	Capitalize the personal pronoun I	1	2	20
6.	Capitalize first word of sentence	1	2	21
7.	Capitalize months, days, streets, cities, states, special days or holidays, countries, non-personal proper names.	1	2	22
8.	Capitalize first letter in personal titles: Mr., Miss, Mrs., Ms., Dr.	1	2	23
9.	Capitalize first word in dialogue quotation	1	2	24
10.	Use period to end a declarative sentence.	1	2	25
11.	Use period to end an imperative sentence. .	1	2	26

		Skill taught during this school year in.		ADP ONLY
		English	Students' Native Language	C/COL
B.	WRITING (Continued)			
12.	Use question mark to end an interrogative sentence.	1	2	27
13.	Use exclamation point to end an exclamatory sentence.	1	2	28
14.	Use comma to separate items in a series . .	1	2	29
15.	Punctuate salutation and complimentary closing of a personal letter.	1	2	30
16.	Use apostrophe in singular possessive forms	1	2	31
17.	Use chronological order	1	2	32
18.	Limit a paragraph to one main idea.	1	2	33
19.	Elaborate for narrative writing: include events appropriate for a straight-line narrative (ex. can discriminate between sentences which belong/do not belong to a story title).	1	2	34
20.	Complete an open-ended story.	1	2	35
21.	Write a straightline narrative of three or more sentences conveying events chronologically in response to a series of pictures .	1	2	36
22.	Write a straightline narrative of a paragraph or more conveying events chronologically in response to an oral instruction (ex: Tell me about the day you started school for the first time.)	1	2	37
23.	Write an expository composition involving one main idea that explains a simple procedure and demonstrates understanding of sequence, direction and movement.	1	2	38
24.	Write a description in one paragraph in response to a picture involving an object that strongly evokes familiar sensory impressions (ex: write a paragraph telling someone who's never eaten a hot dog about one cooking over a fire in a picture, tell about sounds, smell, appearance, taste) . .	1	2	39

	Skill will be taught this year in:		ADP ONLY
	English	Students' Native Language	C/COL
B. **WRITING** (Continued)			
25. Write a description in one or more paragraphs in response to a picture which evokes a variety of sensory impressions (ex: write a paragraph about a picture of a porcupine eating an ice cream cone). .	1	2	40
C. **CLASSROOM INTERACTION**			
1. Student responds to request (by teacher) when called upon by name. Example: T. What was the day before yesterday, Claudia? S. Sunday.	1	2	41
2. Student secures teacher's attention (for classroom participation) following teacher's open invitation for information. Example: T. What other words go with tree? S. (Many children raise hands/John raises hand.) T. John, what is your word? S. Leaf.	1	2	42
3. Student responds to teacher's request when called on by name or by some nonverbal cue (e.g. gesture) following student's bid to respond. Example: T. What other words go with tree? S. (Many children raise hands/John raises hand.) T. John, what is your word? S. Leaf.	1	2	43

	Skill will be taught this year in:		ADP ONLY
	English	Students' Native Language	C/COL
C. **CLASSROOM INTERACTION** (Continued)			
4. Student responds when turn has been designated by automatic (predetermined) turn taking procedure. Example: T. Okay, starting with Monica, each of you will get a turn to answer, we'll go in the order that you're seated around the table. T. Ready, Monica?.	1	2	44
5. Student knows when it is appropriate to call out the answer without being asked. Example: T. I called the tractor a mm. . . S. Machine. T. Right, Rafael, I called it a machine.	1	2	45
6. Student requests further teacher explanation when needed (request for clarification). Example: T. Don't procrastinate! S. What? T. Don't put it off.	1	2	46
			70-71
			72-75
			76
			77
			"04"79-80

THANK YOU VERY MUCH FOR YOUR TIME AND CONCERN

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